

Unit Tests: Workbook 4

JUMP Math

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MULTIPLYING POTENTIAL.

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JUMP Math

Toronto, Ontario

www.jumpmath.org

Patterns & Algebra

Unit Test

Name: _____

Date: _____

Section A

1. Fill in the missing numbers:

- a) _____ is 3 more than 5 b) 13 is _____ more than 7 c) _____ is 9 less than 14

2. Find the gap and then extend the patterns:

NOTE: You should always check that the gap is the same between each pair of numbers!

a) \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc
 2 , 5 , 8 , _____ , _____ , _____

b) \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc
 21 , 19 , 17 , _____ , _____ , _____

c) \bigcirc \bigcirc
 0 , 4 , 8 , _____ , _____ , _____

d) \bigcirc \bigcirc
 46 , 41 , 36 , _____ , _____ , _____

3. State the rule for the following patterns:

a) 65, 75, 85, 95, 105 add _____ b) 39, 33, 27, 21, 15 subtract _____

c) 200, 191, 182, 173, 164 d) 55, 66, 77, 88, 99

Start at _____ and _____

4. Create a pattern of your own. Then give the rule you used.

My pattern: _____ , _____ , _____ , _____ , _____ My rule: _____

5. Josephine reads 7 pages of her book each night. Last night she was on page 64. What page will she reach tonight? And tomorrow night?

6. **3, 9, 14, 20...**

Philip says the above pattern was made by adding 6 each time. Is he correct? Explain:



Patterns & Algebra

Unit Test

Name: _____

Date: _____

Section B

7. Circle the core of the following patterns:



b) 3 1 5 3 1 5 3 1 5 3 1 5

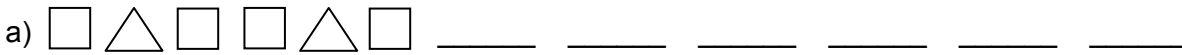
c) C D B D C D B D C D B D



e) 2 2 5 5 2 2 5 5 2 2 5 5

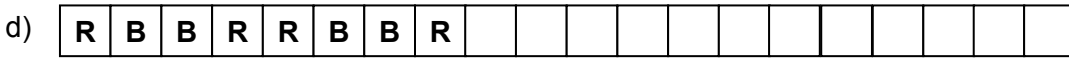


8. Circle the core of the pattern. Then continue the pattern:

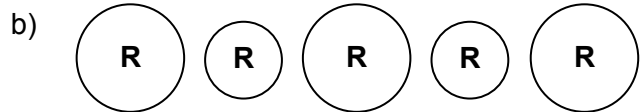


b) A C E A C E A _____

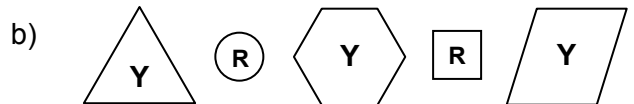
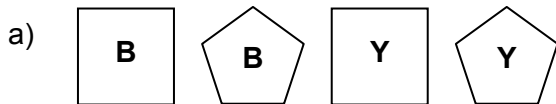
c) 1 8 7 4 1 8 7 4 _____

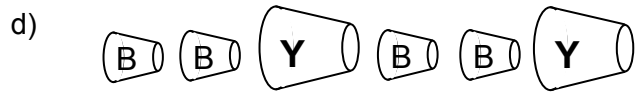


9. Write the one attribute that changes in each pattern:



10. Write the two or three attributes that change in each pattern:







Patterns & Algebra

Unit Test

Name: _____

Date: _____

Section C

11. Extend the following number patterns:

a)

Figure	Number of Blocks
1	3
2	6
3	9

b)

Figure	Number of Blocks
1	2
2	8
3	14

c)

Figure	Number of Blocks
1	5
2	9
3	13

d) How many blocks would be in Figure 7 of part a) above? Explain how you know:

12. Complete each T-table to find the amount of money Daniella would make in 4 hours:

a)

Hours Worked	Dollars Earned in an Hour
1	\$11

b)

Hours Worked	Dollars Earned in an Hour
1	\$15

c)

Hours Worked	Dollars Earned in an Hour
1	\$17

13. Create a T-table to solve the following problem.

On Day 1, Remi planted 12 plants in his garden. Each day after that, he planted 7 plants. How many plants did Remi plant by the end of Day 4?



Patterns & Algebra

Unit Test

Name: _____

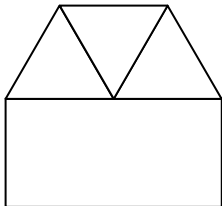
Date: _____

14. Christian starts work on Thursday morning. He mows 7 lawns each day. How many lawns has he mowed by Sunday evening?

15. Jake has \$56 in his savings account in the end of April. He spends \$6 every month after that. How much does he have in the end of July?

Month	Savings
April	\$56

18.



Clare makes an ornament using 1 rectangle and 3 triangles. She has 6 rectangles. How many triangles will she need if she plans to use all 6 rectangles?

Section A

- 8
 - 6
 - 5
- Gap = + 3; 11, 14, 17
 - Gap = - 2; 15, 13, 11
 - Gap = + 4; 12, 16, 20
 - Gap = - 5; 31, 26, 21
- Add 10
 - Subtract 6
 - Start at 200 and subtract 9
 - Start at 55 and add 11
- Answers will vary.
- Tonight: pg. 71
Tomorrow Night: pg. 78
- No, Philip is not correct. The "gap" between 3 & 9 and 14 & 20 is 6, but the gap between 9 & 14 is 5.

Section B

- - 3 1 5
 - C D B D
 -
 - 2 2 5 5
 - | | | |
|---|---|---|
| Y | R | R |
|---|---|---|
- Core =

□	△	□
---	---	---

;

□	△	□	□	△	□
---	---	---	---	---	---
 - Core = A C E; C E A C E
 - Core = 1 8 7 4; 1 8 7 4 1 8 7 4
 - The core (which is

R	B	B	R
---	---	---	---

) repeats 3 more times.
- Colour
 - Size
- Colour, shape
 - Colour, shape and size
 - Colour, shape
 - Colour, size

Section C

- Gap = + 3;

4	12
5	15
6	18
 - Gap = + 6;

4	10
5	26
6	32
 - Gap = + 4;

4	17
5	21
6	25
 - Figure 7 would have 21 blocks – continue to add 3 blocks.
- | | |
|---|------|
| 2 | \$22 |
| 3 | \$33 |
| 4 | \$44 |
 - | | |
|---|------|
| 2 | \$30 |
| 3 | \$45 |
| 4 | \$60 |
 - | | |
|---|------|
| 2 | \$34 |
| 3 | \$51 |
| 4 | \$60 |
- By the end of Day 4, Remi had 33 plants:

Day	Plants
1	12
2	19
3	26
4	33

Section D

- Christian has mowed 28 lawns by Sunday evening:

Day	# Lawns
Thursday	7
Friday	14
Saturday	21
Sunday	28
- By the end of July, Jake has \$38:

Month	# Savings
April	\$56
May	\$50
June	\$44
July	\$38
- To use all 6 rectangles, Claire will need 18 triangles:

Rectangles	Triangles
1	3
2	6
3	9
4	12
5	15
6	18

Number Sense

Unit Test

Name: _____

Date: _____

Section A

1. Beside each number, write the place value of the underlined digit:

- a) 382 b) 726 c) 9453
- d) 3107 e) 2168 f) 5381

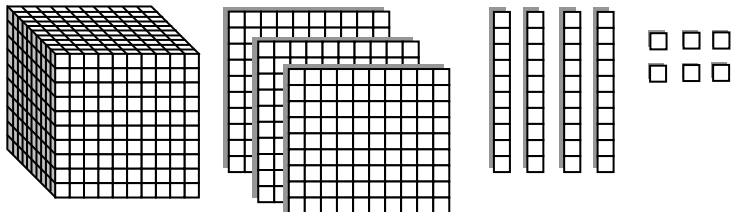
2. Write numerals for the following number words:

- a) four hundred twenty-six _____ b) one thousand, six hundred thirty-seven _____
- c) eight thousand, five hundred ten _____ d) three thousand, two hundred four _____

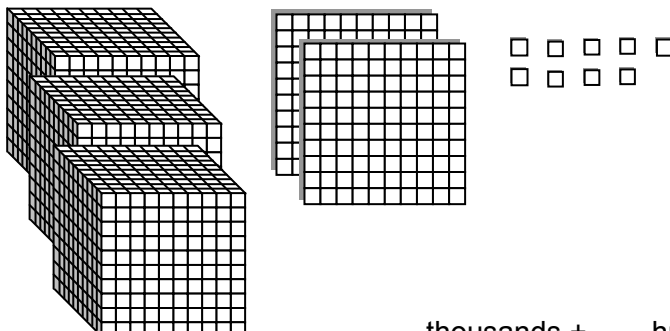
3. Write number words for the following numerals:

- a) 562 _____
- b) 1319 _____
- c) 4308 _____

4. For each question below, give the number represented by the picture. Write each number in expanded form (numerals and words) first:

a)  _____

_____ thousand + _____ hundreds + _____ tens + _____ ones =

b)  _____

_____ thousands + _____ hundreds + _____ tens + _____ ones =

Number Sense

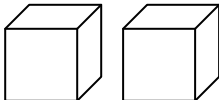
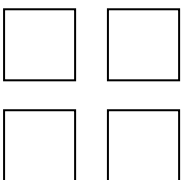


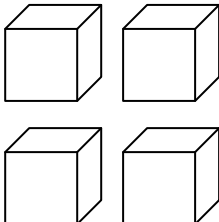
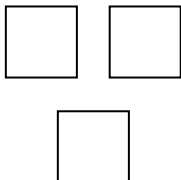
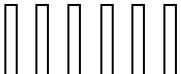

Unit Test

Name: _____

Date: _____

Section A (continued)

5. Write the numbers for the given base ten blocks:

	Thousands	Hundreds	Tens	Ones	Number
a)					_____
b)					_____

6. Represent the given numbers with the base ten blocks in the place value chart:

	Number	Thousands	Hundreds	Tens	Ones
a)	1 263				
b)	3 195				
c)	2 304				

Number Sense

Unit Test

Name: _____

Date: _____

Section A (continued)

7. Expand the following numbers using numerals and words:

a) 5 276 = ____ thousands + ____ hundreds + ____ tens + ____ ones

b) 3 014 = ____ thousands + ____ hundreds + ____ tens + ____ ones

c) 1 938 = _____

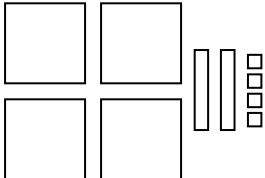
d) 6 460 = _____

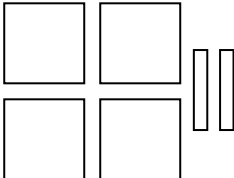
8. Write the number in expanded form (using numerals only):

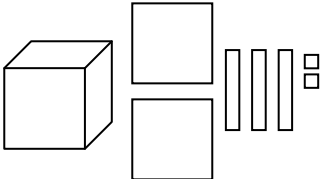
a) 253 = _____ b) 2 657 = _____

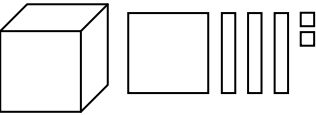
9. Write the number in each box. Then circle the larger number in each pair:

Hint: If there is the same number of thousands, count the number of hundreds or tens.

a) (i)  _____

(ii)  _____

b) (i)  _____

(ii)  _____

10. Circle the greater number in each pair:

- a) 646 or 664 b) 327 or 237 c) 5 688 or 5 788 d) 3 612 or 3 610

11. List all the three-digit numbers you can make using the digits 4, 7 and 6. Circle the greatest number:

Number Sense

Unit Test

Name: _____

Date: _____

Section B

12. Complete the charts below by exchanging 10 tens for 1 hundred:

hundreds	tens
2	19

hundreds	tens
3	11

13. Complete the charts below by exchanging 10 hundreds for 1 thousand:

thousands	hundreds
4	17

thousands	hundreds
6	12

14. Exchange hundreds for thousands, or tens for hundreds:

a) 2 thousands + 13 hundreds + 4 tens + 6 ones = ____ thousands + ____ hundreds + ____ tens + ____ ones

b) 4 thousands + 7 hundreds + 28 tens + 5 ones = _____

15. Add (regrouping where necessary):

a)
$$\begin{array}{r} 43 \\ + 29 \\ \hline \end{array}$$

b)
$$\begin{array}{r} 517 \\ + 192 \\ \hline \end{array}$$

c)
$$\begin{array}{r} 725 \\ + 683 \\ \hline \end{array}$$

d)
$$\begin{array}{r} 2490 \\ + 1353 \\ \hline \end{array}$$

e)
$$\begin{array}{r} 5831 \\ + 2176 \\ \hline \end{array}$$

16. Subtract (regrouping where necessary):

a)
$$\begin{array}{r} 54 \\ - 27 \\ \hline \end{array}$$

b)
$$\begin{array}{r} 726 \\ - 313 \\ \hline \end{array}$$

c)
$$\begin{array}{r} 921 \\ - 156 \\ \hline \end{array}$$

d)
$$\begin{array}{r} 6065 \\ - 3412 \\ \hline \end{array}$$

e)
$$\begin{array}{r} 9572 \\ - 2846 \\ \hline \end{array}$$

17. To answer these questions, you will have to regroup two or three times:

a)

	1	0	0
-		8	1

b)

	1	0	0	0
-		3	4	7

18. Georgia earned \$2 418 during her summer vacation. Emma earned \$1 345. How much more money did Georgia earn than Emma?

Number Sense

Unit Test

Name: _____

Date: _____

Section C

19. Draw two arrays for each of the following multiplication statements (or products):

a) 2×3



b) 3×5



c) 4×6

20. Draw an array to answer the following questions. Include a multiplication statement in your answer:

a) Jenny planted 5 seeds in each row. There are 7 rows of seeds. How many seeds did Jenny plant?

b) A room holds 8 tables. Each table seats 4 people. How many people can sit in the room at once?

21. Multiply by regrouping ones as tens or tens as hundreds:

a)

3	2	5
x		3
<hr/>		

b)

1	1	4
x		5
<hr/>		

c)

1	5	1
x		5
<hr/>		

d)

2	4	2
x		3
<hr/>		

e)

1	5	2
x		3
<hr/>		

22. Jacob multiplied two numbers. The product was one of the numbers. What was the other number? How do you know?

23. Florence multiplied 5 by some number. The product was zero. What number was that? How do you know?

Number Sense

Unit Test

Name: _____

Date: _____

Section C (continued)

24. Round to the nearest tens place. **HINT: Underline the tens digit first.**

- a) 16 b) 81 c) 255

25. Round to the nearest hundreds place. **HINT: Underline the hundreds digit first.**

- a) 178 b) 236 c) 419
d) 975 e) 1 477 f) 2 831

26. Round to the nearest thousands place (underline the thousands digit first):

- a) 2 457 b) 8 193 c) 3 524

27. A store has the following items for sale:

- A.** Sofa - \$525 **B.** Arm Chair - \$216 **C.** Table - \$219 **D.** Desk - \$354 **E.** Lamp - \$97

a) What could you buy if you had \$750 to spend? Estimate to find out. Then add the actual price to check:

b) What would you buy if you had \$1 000 to spend? Again, show both your estimate and the actual total price:

Number Sense

Unit Test

Name: _____

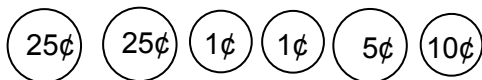
Date: _____

Section D

28. Count the given coins and write the total amount:

Hint: Count by the greater amount first.

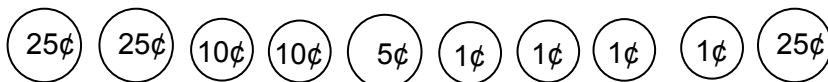
a) Total amount = _____ ¢



b) Total amount = _____



c) Total amount = _____



29. For each question, draw in exactly **two additional coins** to make each total:

a) 20¢	
b) 41¢	
c) \$4	
d) \$7	

30. Use the least number of coins to make the totals:

Hint: Start by seeing how many dimes you need (if any), then nickels and then pennies.

a) 16¢	b) 23¢
--------	--------

31. Erik sold cookies for his class field trip. He collected 4 toonies, 6 loonies, 2 quarters, 7 dimes, 3 nickels and 9 pennies. How much money did he collect in total?

32. Cathy spent 73¢ on her eraser. She paid for it with a loonie. Calculate her change:

Unit Test: Number Sense – Workbook 4, Part I

Section A

1. a) Tens
b) Hundreds
c) Ones
d) Thousands
e) Hundreds
f) Tens
2. a) 426
b) 1 637
c) 8 510
d) 3 204
3. a) Five hundred sixty-two
b) One thousand three hundred nineteen
c) Four thousand three hundred eight
4. a) 1 346
b) 3 209
5. a) 2 438
b) 4 361
6. Teacher to check.
7. a) 5 thousands + 2 hundreds + 7 tens + 6 ones
b) 3 thousands + 0 hundreds + 1 tens + 4 ones
c) 1 thousands + 9 hundreds + 3 tens + 8 ones
d) 6 thousands + 4 hundreds + 6 tens + 0 ones
8. a) $200 + 50 + 3$
b) $2000 + 600 + 50 + 7$
9. a) i) 424
ii) 420
b) i) 1 232
ii) 1 132
10. a) 664
b) 327
c) 5 788
d) 3 612
11. 476, 467, 647, 674, 746, 764

Section B

12.

hundreds	tens
3	9

hundreds	tens
4	1
13.

thousands	hundreds
5	7

thousands	hundreds
7	2
14. a) 3 thousands + 3 hundreds + 4 tens + 6 ones
b) 4 thousands + 9 hundreds + 8 tens + 5 ones
15. a) 72
b) 709
c) 1 408
d) 3 843
e) 8 007
16. a) 27
b) 413
c) 765
d) 2 653
e) 6 726
17. a) 19
b) 653
18. Georgia earned \$1 073 more than Emma (\$2 418 – \$1 345).

Section C

19. a) $\begin{matrix} \bullet & \bullet & \bullet \\ \bullet & \bullet & \bullet \\ \bullet & \bullet & \bullet \end{matrix}$
and
 $\begin{matrix} \bullet & \bullet \\ \bullet & \bullet \\ \bullet & \bullet \end{matrix}$
- b) $\begin{matrix} \bullet & \bullet & \bullet & \bullet \\ \bullet & \bullet & \bullet & \bullet \\ \bullet & \bullet & \bullet & \bullet \end{matrix}$
and
 $\begin{matrix} \bullet & \bullet & \bullet \\ \bullet & \bullet & \bullet \\ \bullet & \bullet & \bullet \end{matrix}$
- c) $\begin{matrix} \bullet & \bullet & \bullet & \bullet & \bullet \\ \bullet & \bullet & \bullet & \bullet & \bullet \\ \bullet & \bullet & \bullet & \bullet & \bullet \end{matrix}$
and
 $\begin{matrix} \bullet & \bullet & \bullet & \bullet \\ \bullet & \bullet & \bullet & \bullet \\ \bullet & \bullet & \bullet & \bullet \end{matrix}$
20. a) $\begin{matrix} \bullet & \bullet & \bullet & \bullet & \bullet \\ \bullet & \bullet & \bullet & \bullet & \bullet \\ \bullet & \bullet & \bullet & \bullet & \bullet \\ \bullet & \bullet & \bullet & \bullet & \bullet \end{matrix}$
 $5 \times 7 = 35$
Jenny planted 35 seeds.
- b) $\begin{matrix} \bullet & \bullet & \bullet & \bullet \\ \bullet & \bullet & \bullet & \bullet \\ \bullet & \bullet & \bullet & \bullet \\ \bullet & \bullet & \bullet & \bullet \\ \bullet & \bullet & \bullet & \bullet \\ \bullet & \bullet & \bullet & \bullet \\ \bullet & \bullet & \bullet & \bullet \\ \bullet & \bullet & \bullet & \bullet \end{matrix}$
 $8 \times 4 = 32$
There would be room for 32 people to sit.
21. a) 975
b) 570
c) 755
d) 726
e) 456

Section C (continued)

22. The other number must have been 1 since any number times one is equal to the number itself.
23. The number must have been 0 since any number times zero is zero.
24. a) 20
b) 80
c) 260
25. a) 200
b) 200
c) 400
d) 1000
e) 1 500
f) 2 800
26. a) 2000
b) 8 000
c) 4 000
27. a) Answers will vary: teacher to check.
b) Answers will vary: teacher to check.

Unit Test: Number Sense – Workbook 4, Part I *(continued)*

Section D

28. a) 67¢
b) 62¢
c) 104¢
29. a) 5¢, 10¢
b) 10¢, 1¢
c) \$1, \$1
d) \$2, \$2
30. a) 10¢, 5¢, 1¢
b) 10¢, 10¢, 1¢,
1¢, 1¢
31. Eric collected \$15.44 in total.
32. Cathy's change would be 27¢.

Measurement

Unit Test

Name: _____

Date: _____

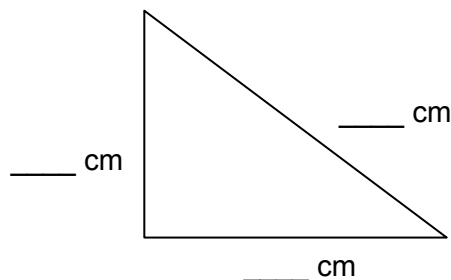
Section A

1. Measure all the sides of each shape:

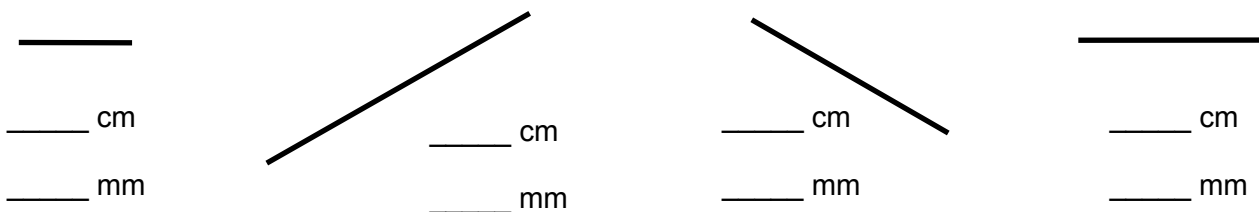
a)



b)



2. Measure the following lines using both centimetres and millimetres:



3. Write the following units in order from smallest to largest:

cm

m

km

mm

4. Complete the following equations:

1 cm = _____ mm

1 m = _____ cm

1 km = _____ m

5. Fill in the numbers missing from the following charts. Be sure to look at the headings carefully!

cm	mm
3	
	70
14	

cm	m
200	
	5
	11

m	km
	2
5 000	
	19

6. Convert the measurement given in cm to a measurement using multiple units:

a) 427 cm = _____ m _____ cm

b) 259 cm = _____ m _____ cm

c) 619 cm = _____ m _____ cm

d) 504 cm = _____ m _____ cm

Measurement

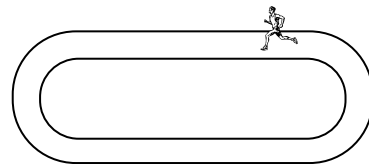
Unit Test

Name: _____

Date: _____

Section A (continued)

7. Gustav is a member of his school's track team. The track is 300 m long:

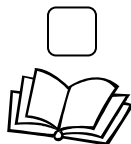


a) If Gustav ran 3 times around the track, how many metres would he have travelled? Show your work.

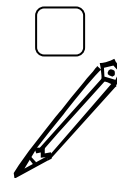
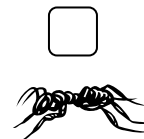
b) If Gustav is planning on competing for the 2 000 m race at the Metro Finals. About how many times around the track is this? Explain your answer.

8. Number the following items from smallest to largest (1 = smallest, 2 = middle, 3 = largest). What unit would you use to measure the height or length of each item? Write it underneath:

a)



b)



9. Which unit of measurement would you use for the following:

a) Length of a ladybug: _____

b) Height of your school: _____

c) Length of your arm: _____ Explain your thinking:

d) The distance traveled by plane from Halifax to Winnipeg: _____ Explain your thinking:

Measurement

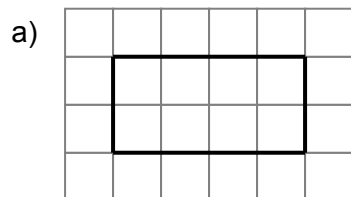
Unit Test

Name: _____

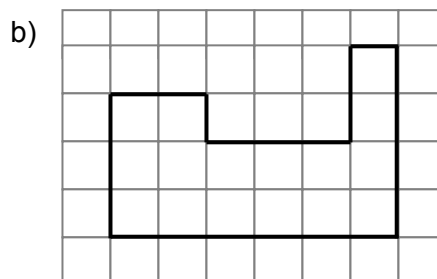
Date: _____

Section B

10. Each edge is 1 unit long. Write the length of each side beside the figure (don't miss any edges!). Then use the side lengths to find the perimeter. Show your work:

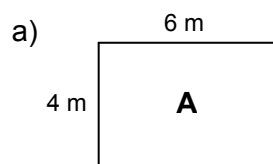


Perimeter = _____

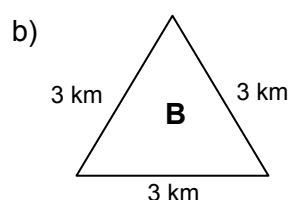


Perimeter = _____

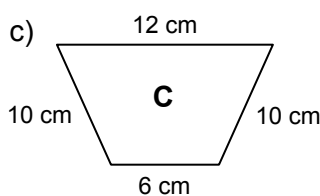
11. Find the perimeter of each shape. Don't forget to include proper units in your answer:



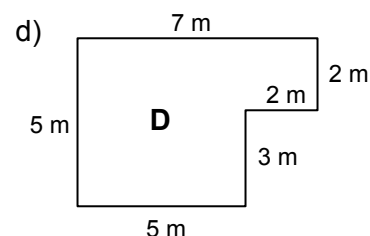
Perimeter = _____



Perimeter = _____



Perimeter = _____



Perimeter = _____

- e) Write the letters of the shapes in order from greatest perimeter to least perimeter. (Make sure you look at the units!)

12. Andrea finds the perimeter by measuring each side of the square and adding them together. Betsey finds the perimeter by measuring one side of the square and multiplying this number by four. Will they get the same answer? Explain.

Measurement

Unit Test

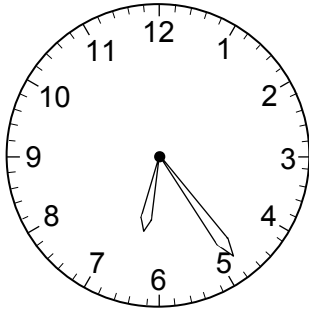
Name: _____

Date: _____

Section C

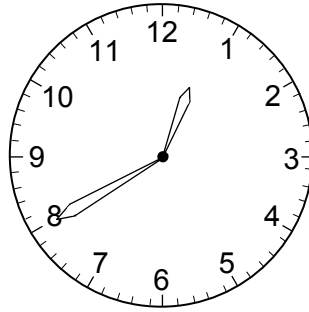
13. For each clock, write the entire time – that is, the hour and the exact minute:

a)



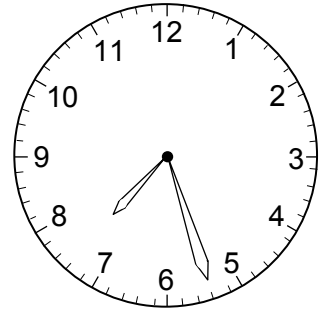
_____ : _____

b)



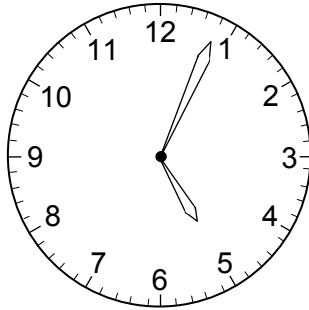
_____ : _____

c)



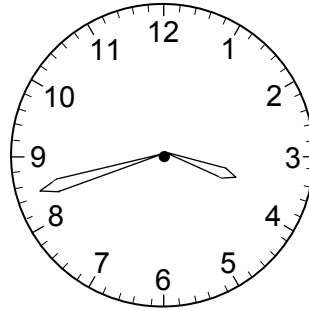
_____ : _____

d)



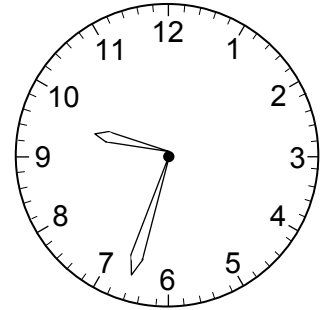
_____ : _____

e)



_____ : _____

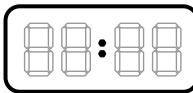
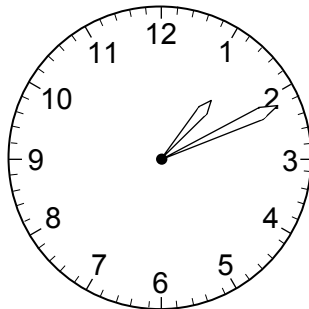
f)



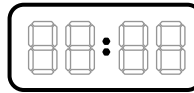
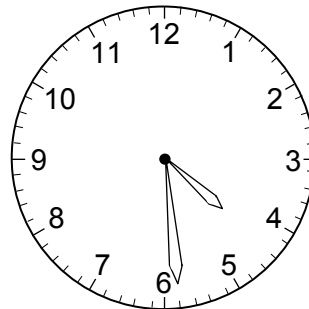
_____ : _____

14. Write the time on the digital clock. Then write the time in words:

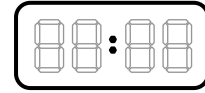
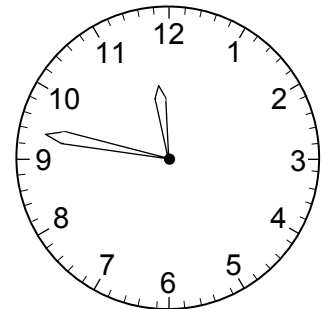
a)



b)



c)



Measurement

Unit Test

Name: _____

Date: _____

Section C (continued)

15. How much time passed from 10:55 to 12:20?

16. How many...

a) months are in 1 year? _____

b) weeks are in a month? _____

c) days are in a year? _____

d) seconds are in a minute? _____

17. How many months are in 3 years?

18. Use lines to connect a length of time in the first column to an equal length of time in the second – be sure to convert properly!

1 year
30 years
1 day
4 centuries
120 minutes

400 years
24 hours
3 decades
2 hours
365 days

19. In each case, match the question with the unit of time you would use to give the answer:

What is your friend's age?
How long does it take you to walk around the block?
How long is the school day?
How long is March Break?
How long is summer vacation?

years
weeks
months
minutes
hours

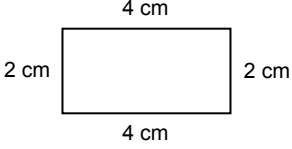
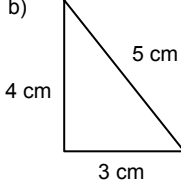
20. Convert the times from 24-hour notation using a.m. or p.m.

a) 13:00 _____

b) 7:30 _____

Unit Test: Measurement – Workbook 4, Part I

Section A

1. a) 
- b) 
2. a) 1.5 cm; 15 mm
b) 4 cm; 40 mm
c) 3 cm; 30 mm
d) 2.5 cm; 25 mm
3. mm; cm; m; km
4. 1 cm = 10 mm
1 m = 100 cm
1 km = 1 000 m
5.

cm	mm
3	30
7	70
14	140

cm	m
200	2
500	5
1 100	11

m	km
2 000	2
5 000	5
19 000	19
6. a) 4 m 27 cm
b) 2 m 59 cm
c) 6 m 19 cm
d) 5 m 4 cm
7. a) Gustav would have travelled 900 m (3×300).

- b) Specific answers will vary, but the estimate should be 6 or 7 times around the track.
8. a) (2) cm;
(3) m;
(1) mm
b) (3) km;
(1) mm;
(2) cm
9. a) mm
b) m
c) cm
(explanations will vary)
d) km
(explanations will vary)

Section B

10. a) $4 + 2 + 4 + 2 = 12$ units
b) $3 + 2 + 1 + 3 + 2 + 1 + 4 + 6 = 22$ units
11. a) 20 m
b) 9 km
c) 38 cm
d) 24 m
e) B, D, A, C
12. Yes, they will get the same answer, since the 4 sides on a square are all equal.

Section C

13. a) 6:24
b) 12:40
c) 7:27
d) 5:04
e) 3:42
f) 9:33
14. a) 01:11
eleven minutes after one
b) 04:29
twenty-nine minutes after four
c) 11:47
Answers will vary: thirteen minutes before twelve;
forty-seven minutes after eleven.
d) \$2, \$2
15. 1 hr 25 min
16. a) 12
b) About 4
c) 365
d) 60
17. $3 \times 12 = 36$ months
18. 1 year = 365 days
30 years = 3 decades
1 day = 24 hours
4 centuries = 400 years
120 minutes = 2 hours
19. Teacher to check.
20. a) 1:00 p.m.
b) 7:30 a.m.

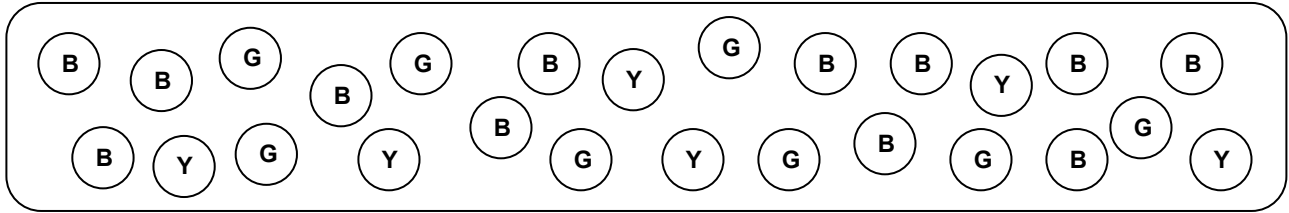
Probability & Data Management

Name: _____


Unit Test

Date: _____

1. In a bag of marbles, there are three different colours: blue (B), green (G) and yellow (Y).



- a) Use the chart to tally the marbles. Then create a pictograph using the key provided:

KEY:  = 2 marbles

Colour	Tally	Pictograph
Blue		
Green		
Yellow		

- b) Suppose, instead, there were 9 green marbles in the bag. How would you use the key above to draw the pictograph for 9?

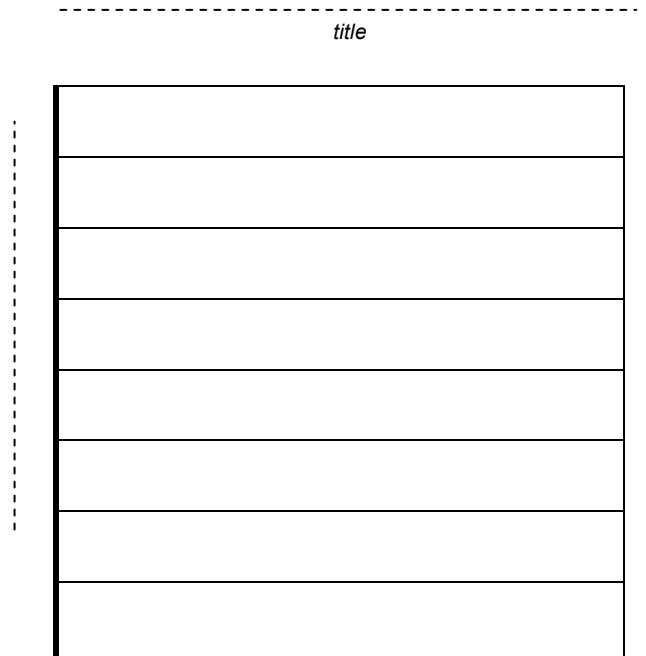
2. Complete the following tally chart below:

Question: What is your favourite animal?

Animal	Tally of Students	Count
Dog	### ##	_____
Cat	### IIII	_____
Horse	III	_____
Rabbit	### I	_____

Next, complete the bar graph to display the data in the chart.

Be sure to label your axes clearly, and include a title. Also, think carefully about a scale that would be suitable.



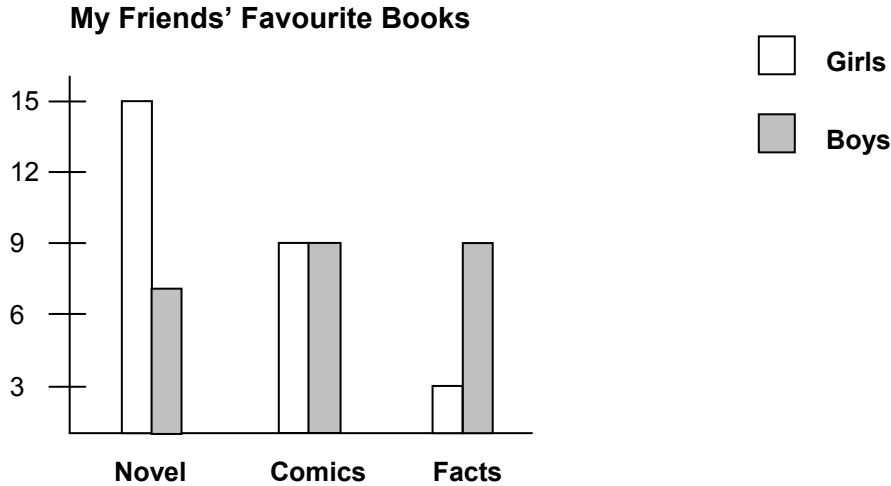
Probability & Data Management

Unit Test

Name: _____

Date: _____

3. Can you help Luke read the following double bar graph?

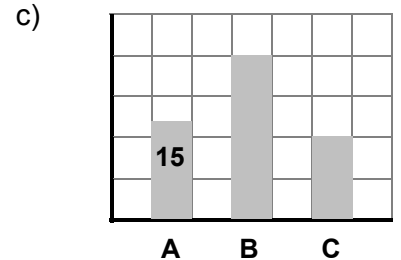
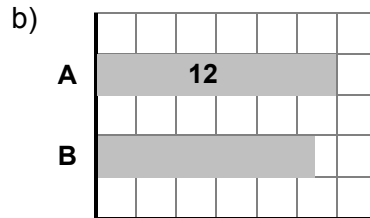
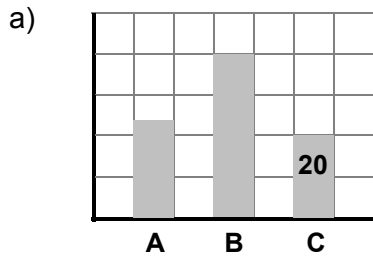


a) Which type of books did the same number of boys and girls prefer?

b) What type of books do girls like most? What about boys?

c) How many girls voted altogether? How many boys?

4. Determine the values of the other bars on the graphs:



Probability & Data Management

Unit Test

Name: _____

Date: _____

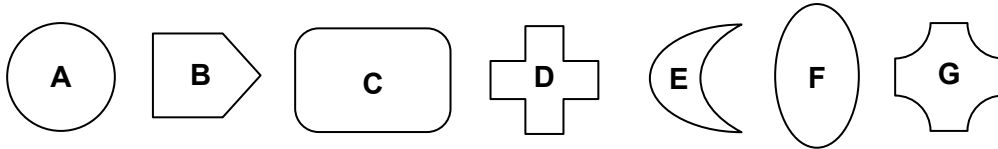
5. Ivan found the following information on the Internet:

- a) Ivan must create a data display of this information. What type of graph do you think he should use? Why?

<u>City</u>	<u>Average Annual Snowfall (cm)</u>
Yellowknife, NT	143
Regina, SK	107
Winnipeg, MB	114
Halifax, NS	261
St. John's, NF	322

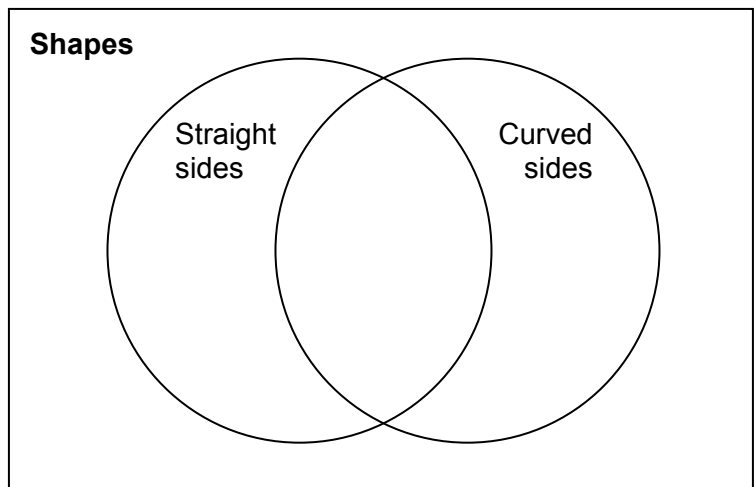
- b) Display Ivan's data on the kind of graph you named above. Be sure to include labels.

6. Look at the following shapes:



Fill in the following table (using checkmarks), and then use the table to complete the Venn diagram:

Shape	<u>Straight sides only</u>	<u>Curved sides only</u>	<u>Both straight and curved sides</u>
A			
B			
C			
D			
E			
F			
G			



Section A

1. a)

Colour	Tally	Pictograph
Blue	12	○○○○○○○○
Green	8	○○○○○○
Yellow	6	○○○○

b) 9 would be drawn as:

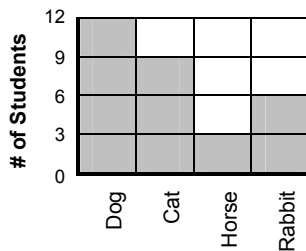
○○○○○

2.

Animal	Count
Dog	12
Cat	9
Horse	3
Rabbit	6

Bar graphs will vary, but here is a sample:

Our Favourite Animals



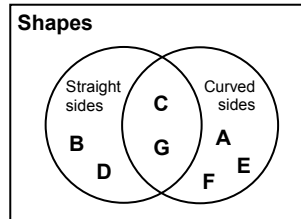
Favourite Animal

3. a) Comics
 b) Girls prefer novels; boys prefer comics and facts books.
 c) $15 + 9 + 3 = 27$ girls
 $7 + 9 + 3 = 19$ boys
4. a) A = 25
 B = 40
 b) B = 11
 c) B = 20
 C = 5
5. a) Teacher to check.
 b) Answers will vary; teacher to check.

Section B

6.

Shape	Straight Only	Curved Only	Both
A		✓	
B	✓		
C			✓
D	✓		
E		✓	
F		✓	
G			✓



Geometry

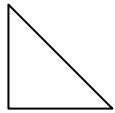
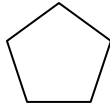
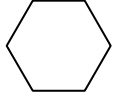
Unit Test

Name: _____

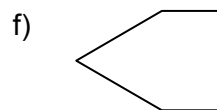
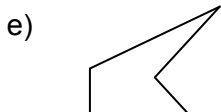
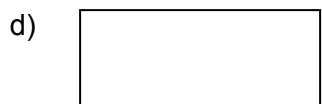
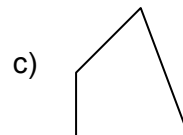
Date: _____

Section A

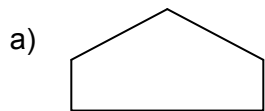
1. a) Complete the chart:
- b) For these shapes, what relationship do you see between the number of sides and the number of vertices?

	Shape name	# of sides	# of vertices
			
			
			

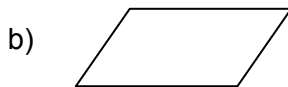
2. Mark (with a small square) all the right angles in the following figures. Then circle the figures that have exactly two right angles:



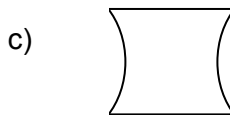
3. Use arrows to mark any pairs of parallel lines in the figures below:



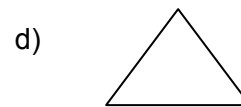
___ pairs



___ pairs



___ pairs



___ pairs

Geometry

Unit Test

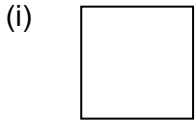
Name: _____

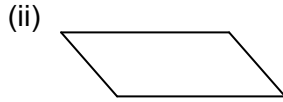
Date: _____

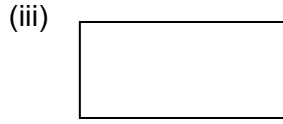
Section A (continued)

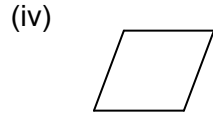
4. a) Name the following shapes:

HINT: Use the words rhombus, square, parallelogram and rectangle. Watch your spelling!



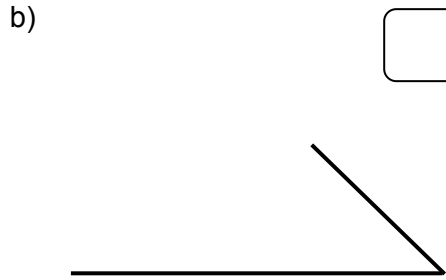
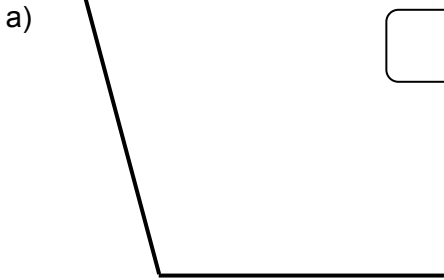






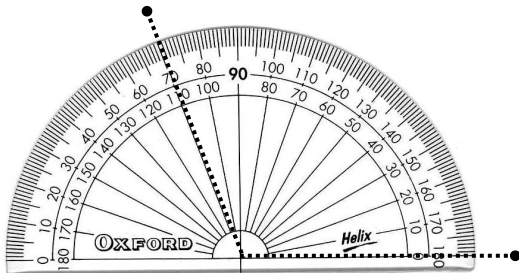
b) How did you decide which shape was the rhombus? Explain.

5. Measure the following angles, using a protractor. Don't forget your units!



6. How many degrees are there in a right angle? _____

7. When Vanessa measured the angle in the diagram, she thought it was 70°. What error did she make? What is the correct measure of the angle?



Geometry

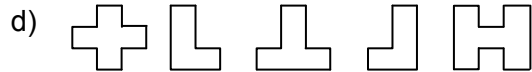
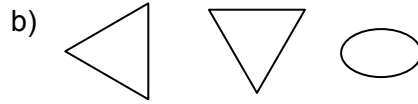
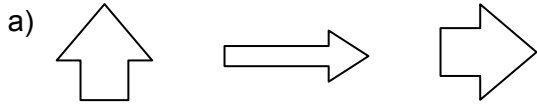
Unit Test

Name: _____

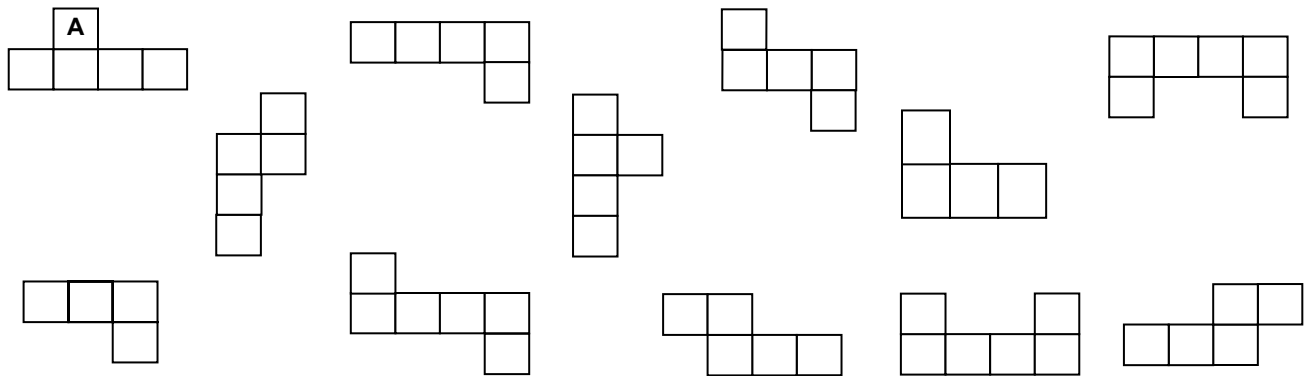
Date: _____

Section B

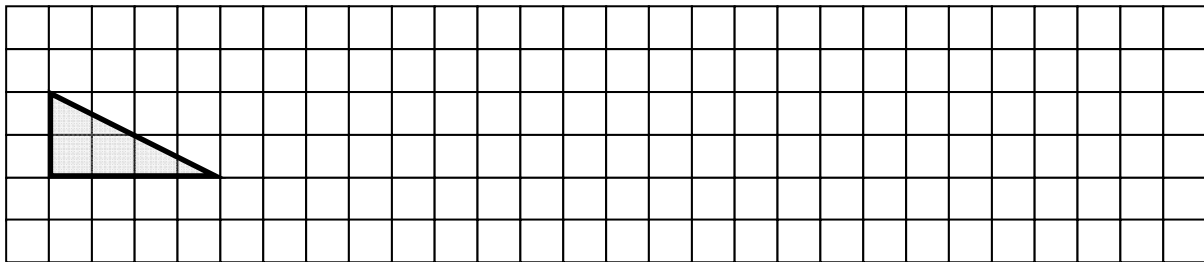
8. Circle the pairs of shapes that are congruent:



9. Find any shapes that are congruent to Shape A and label them with the letter A. If you can find any other shapes that are congruent to each other, label them all with the same letter:



10. In the grid below, draw TWO shapes: (i) one that is congruent to the shape provided but is turned on the side and (ii) one that is not congruent to the shape provided. Label them clearly:



11. What does it mean if a shape is equilateral?

Geometry

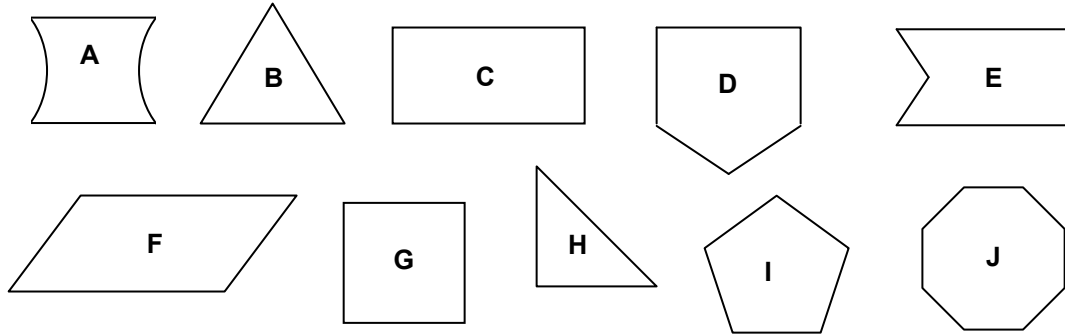
Unit Test

Name: _____

Date: _____

Section B (continued)

12. Using these shapes, answer the questions below:



a) Which shapes above (by letter) are equilateral? _____

b) Categorize the shapes by type:

Shapes	Letter
Triangles	
Quadrilaterals	

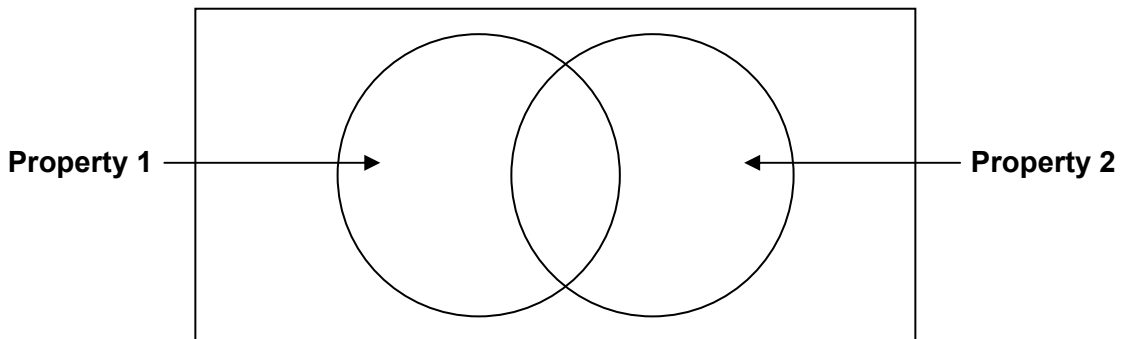
Shapes	Letter
Pentagons	
Octagons	

c) Which shapes (by letter) didn't fit any of the shape names given? Why?

d) Complete the following chart. Then, using your chart and the Venn diagram provided, sort the figures by the properties given:




Property	Figures with this property:
1. I have more than 4 vertices	
2. I have at least 1 right angle	

HINT: Which figures share both properties? Which figures have neither?

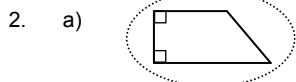


Section A

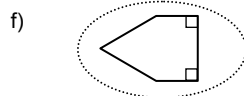
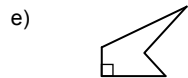
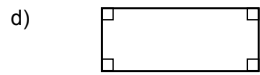
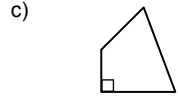
1. a)

	Name	# S	# V
	Triangle	3	3
	Pentagon	5	5
	Hexagon	6	7

b) The number of sides equals the number of vertices.



b) No right angles



1 pair



2 pairs



1 pair

d) 0 pairs

4. a) (i) square
(ii) parallelogram
(iii) rectangle
(iv) rhombus

b) Although both a square and a rhombus are equilateral and have 2 pairs of parallel sides, a rhombus does require right angles!

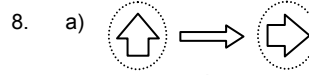
5. a) 105°

b) 46°

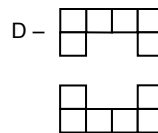
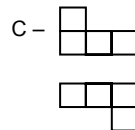
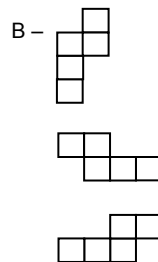
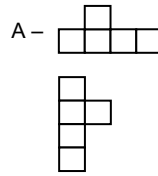
6. 90°

7. Since the angle given is larger than a right angle (90°), Vanessa should have read the measure from the inner row of numbers. The correct measurement is 110° .

Section B



9. NOTE:
Letters used may vary.



10. Answers will vary; teacher to check.

11. It means that all sides are the same length.

12. a) B, G, I, J

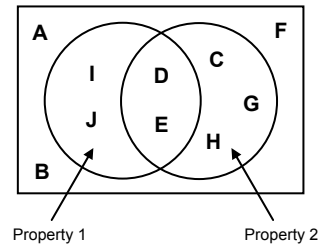
b)

Shapes	Letter
Triangles	B, H
Quadrilaterals	C, F, G
Pentagons	D, E, I
Octagons	J

c) 'A' doesn't fit any of the shapes given: it is not a polygon / quadrilateral since it contains sides that are curved.

d)

Property	Figures
#1	D, E, I, J
#2	C, D, E, G, H



Patterns & Algebra

Unit Test

Name: _____

Date: _____

Section A

1. Describe each pattern as increasing, decreasing or repeating:

- a) 1, 4, 7, 10, 13, 16 _____ b) 1, 5, 8, 1, 5, 8 _____
- c) 9, 8, 7, 6, 5, 4 _____ d) 2, 4, 6, 8, 10, 12 _____
- e) 21, 16, 10, 7, 5, 1 _____ f) 3, 8, 3, 8, 3, 8 _____

2. A gardener plants roses (R), lilies (L) and tulips (T) in rows in the pattern shown to the right:

- a) Complete the chart.
- b) In which row will the pattern in the second row be repeated? _____

Row 1	R	L	T	R	L
Row 2	T	R	L	T	
Row 3					
Row 4					
Row 5					
Row 6					
Row 7					

3. a) On the chart, circle every 11th number (i.e. circle the numbers you would say when counting by 11's: 11, 22, 33, ...).

The numbers you circle are the multiples of 11 (up to 132).

- b) What patterns can you see in the ones digit and the tens digit of the multiples of 11?

1	2	3	4	5	6	7	8	9	10	11	12
13	14	15	16	17	18	19	20	21	22	23	24
25	26	27	28	29	30	31	32	33	34	35	36
37	38	39	40	41	42	43	44	45	46	47	48
49	50	51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70	71	72
73	74	75	76	77	78	79	80	81	82	83	84
85	86	87	88	89	90	91	92	93	94	95	96
97	98	99	100	101	102	103	104	105	106	107	108
109	110	111	112	113	114	115	116	117	118	119	120
121	122	123	124	125	126	127	128	129	130	131	132

Patterns & Algebra

Unit Test

Name: _____

Date: _____

Section A (continued)

4. Find the step or the gap between the numbers in the sequence. Continue the pattern in the gaps. Then extend the sequence.

a) \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc
 a) 2 , 4 , 7 , 11 , _____ , _____

b) \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc
 b) 3 , 4 , 6 , 9 , 13 , _____ , _____

c) \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc
 c) 10 , 22 , 32 , 40 , _____ , _____

d) \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc
 d) 6 , 8 , 12 , 18 , 26 , _____ , _____

e) \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc
 e) 99 , 78 , 60 , 45 , _____ , _____

f) \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc
 f) 110 , 105 , 95 , 80 , 60 , _____ , _____

5. Roger and Eve save the amounts shown:

a) What is the pattern rule for the amount Roger saves?

b) What is the pattern rule for the amount Eve saves?

Week	Roger	Eve
1	\$1	\$17
2	\$2	\$21
3	\$4	\$25
4	\$8	\$29
5		
6		
7		

c) Who do you think will save more by the end of the seven weeks?

d) Continue the pattern to see if you are right.

Patterns & Algebra

Unit Test

Name: _____

Date: _____

Section B

6. How many triangles will be needed for Figure 6? How do you know?

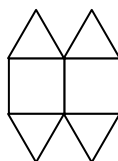


Figure 1

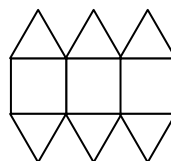


Figure 2

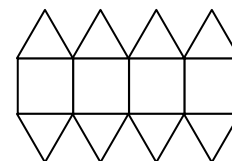


Figure 3

7. What is the 23rd shape in this pattern? Explain how you know.



8. Look at the numbers below and circle those that are multiples of 5. How do you know the numbers you circled are multiples of 5?

75 125 132 270 382 597 670

9. Extend each pattern:

a) 3427 3527 3627 _____ _____ _____

b) 4234 5235 6236 _____ _____ _____

c) 1234 2345 3456 _____ _____ _____

Patterns & Algebra

Unit Test

Name: _____

Date: _____

Section C

10. Find the number that makes the equation true and write it in the box:

a) + 2 = 5

b) 3 + = 9

c) + 2 = 11

d) 9 - = 4

e) 17 - = 12

f) 8 - = 6

g) 2 × = 8

h) × 5 = 15

i) 3 × = 12

j) ÷ 3 = 4

k) ÷ 5 = 2

l) ÷ 2 = 4

m) 9 + 3 = 6 +

n) 10 - 3 = + 4

NOTE: In these questions you have to put the same number in both boxes of the equation.

o) + = 8

p) + + 3 = 13

11. Find 3 sets of numbers that make the equation true:

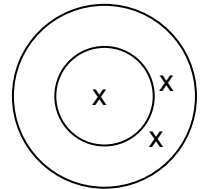
NOTE: In each equation, congruent shapes represent the same number.

+ + = 7

+ + = 7

+ + = 7

12. Raegan threw 3 darts and scored 5 points. The dart in the centre ring is worth more than the others. How much is each dart worth? Show your work:



13. Find the mystery number:

“I am greater than 17 and less than 24. I am a multiple of 4. What number am I?”

Section A

1. a) increasing
b) repeating
c) decreasing
d) increasing
e) decreasing
f) repeating

2. a)

1	R	L	T	R	L
2	T	R	L	T	R
3	L	T	R	L	T
4	R	L	T	R	L
5	T	R	L	T	R
6	L	T	R	L	T
7	R	L	T	R	L

- b) Row 5
3. a) Teacher to check.
b) For the two-digit numbers, the ones and tens digits are the same.
For the three-digit numbers, the ones digit is 1 less than the tens digit.
 4. a) Gaps:
2, 3, 4, 5, 6
Continued Pattern:
16, 22
b) Gaps:
1, 2, 3, 4, 5, 6
Continued Pattern:
18, 24
c) Gaps:
-12, -10, -8, -6, -4
Continued Pattern:
34, 30
d) Gaps:
2, 4, 6, 8, 10, 12
Continued Pattern:
36, 48
e) Gaps:
-21, -18, -15, -12, -9
Continued Pattern:
33, 24
f) Gaps:
-5, -10, -15, -20, -25, -30
Continued Pattern:
35, 3

5. a) Each week, Roger saves twice as much as he did the previous week.
b) Each week, Eve saves \$4 more than she did the previous week.
c) Answers may vary.



d)

Wk	R	E
1	\$1	\$17
2	\$2	\$21
3	\$4	\$25
4	\$8	\$29
5	\$16	\$33
6	\$32	\$37
7	\$64	\$41

Roger will save more by the end of seven weeks (\$64 vs \$41).




Section B

6.

Fig #		
1	2	4
2	3	6
3	4	8
4	5	10
5	6	12
6	7	14

For Figure 6, you will need 14 triangles.

7. Skip count by 4s:
4, 8, 12, 16, 20.
20th term is a \bigcirc , the core starts anew at 21st term.

Term:	21	23	23
Shape:			

8. Multiples of 5:
75, 125, 270, 670
You can tell by looking at the ones digit: those with a 5 or 0 in the ones digit are divisible by 5.
9. a) 3 727, 3 827, 3 927
b) 7 237, 8 238, 9 239
c) 4 567, 5 678, 6 789

Section C

10. a) 3
b) 6
c) 9
d) 5
e) 5
f) 2
g) 4
h) 3
i) 4
j) 12
k) 10
l) 8
m) 6
n) 3
- NOTE:**
For the following questions, you must put the *same number* in both boxes.
- o) 4
p) 5
 11. $1 + 1 + 5 = 7$
 $2 + 2 + 3 = 7$
 $3 + 3 + 1 = 7$
 12. You can rewrite this question as an equation:
 $\square + \square + \bigcirc = 5$
The possible solutions are:
 $1 + 1 + 3 = 5$
 $2 + 2 + 1 = 5$
But, since the centre ring is worth more, $\bigcirc > \square$ so the first solution is correct.
Outside dart = 1 point
Centre dart = 2 points
 13. The mystery number is 20.

Number Sense

Unit Test

Name: _____

Date: _____

Section A

1. Mary Anne has 12 cookies. She gives 3 cookies to each of her friends. How many friends get cookies?

2. Aidan has 14 stamps. He puts 2 stamps on each envelope. How many envelopes does he use?

3. a) 6 grapefruits in each box; 42 grapefruits; 7 boxes.

What has been shared or divided into sets? _____ How many sets? _____

How many in each set? _____

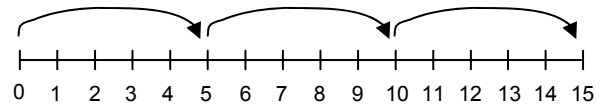
b) 3 school buses; 30 kids; 10 kids in each school bus.

What has been shared or divided into sets? _____ How many sets? _____

How many in each set? _____

4. 5 friends share 15 tickets. How many tickets does each friend get? Show your work.

5. Write a division statement and an addition statement for the given picture:



Number Sense

Unit Test

Name: _____

Date: _____

Section B

6. For each question, write a multiplication or a division statement to solve the problem:

- a) 18 things in total
3 things in each set

How many sets? _____

- b) 5 sets
4 things in each set

How many in total? _____

- c) 8 sets
3 things in each set

How many in total? _____

- d) 6 things in each set
12 things in total

How many sets? _____

7. Show your work for these problems in the space provided:

a) 20 people; 4 vans. How many people in each van?	b) 3 marbles in each jar; 6 jars. How many marbles?
c) 15 flowers; 5 pots. How many flowers in each pot?	d) 4 chairs at each table; 2 tables. How many chairs?

8. Find two different ways to share 9 apples equally so that one apple is left over:

Number Sense

Unit Test

Name: _____

Date: _____

Section B (continued)

9. For each question, carry out the steps of long division:

a)
$$\begin{array}{r} \\ 5 \overline{) 24} \\ \underline{} \\ \end{array}$$

b)
$$\begin{array}{r} \\ 3 \overline{) 13} \\ \underline{} \\ \end{array}$$

c)
$$\begin{array}{r} \\ 5 \overline{) 19} \\ \underline{} \\ \end{array}$$

d)
$$\begin{array}{r} \\ 2 \overline{) 17} \\ \underline{} \\ \end{array}$$

10. Carry out all the steps of long division:

a)
$$\begin{array}{r} \\ 3 \overline{) 74} \\ \underline{} \\ \\ \underline{} \\ \end{array}$$

b)
$$\begin{array}{r} \\ 4 \overline{) 54} \\ \underline{} \\ \\ \underline{} \\ \end{array}$$

c)
$$\begin{array}{r} \\ 2 \overline{) 27} \\ \underline{} \\ \\ \underline{} \\ \end{array}$$

d)
$$\begin{array}{r} \\ 5 \overline{) 70} \\ \underline{} \\ \\ \underline{} \\ \end{array}$$

e)
$$\begin{array}{r} \\ 5 \overline{) 84} \\ \underline{} \\ \\ \underline{} \\ \end{array}$$

f)
$$\begin{array}{r} \\ 4 \overline{) 64} \\ \underline{} \\ \\ \underline{} \\ \end{array}$$

g)
$$\begin{array}{r} \\ 3 \overline{) 96} \\ \underline{} \\ \\ \underline{} \\ \end{array}$$

h)
$$\begin{array}{r} \\ 6 \overline{) 89} \\ \underline{} \\ \\ \underline{} \\ \end{array}$$

11. A canoe can hold 3 kids. How many canoes will 44 kids need?

$$\begin{array}{r} \\ \overline{) } \\ \underline{} \\ \\ \underline{} \\ \end{array}$$

12. Alexa put 73 apples in bags of 6. Mike put 46 apples in bags of 4. Who had more apples left over?

$$\begin{array}{r} \\ \overline{) } \\ \underline{} \\ \\ \underline{} \\ \end{array}$$

$$\begin{array}{r} \\ \overline{) } \\ \underline{} \\ \\ \underline{} \\ \end{array}$$

Number Sense

Unit Test

Name: _____

Date: _____

Section B (continued)

13. Divide:

4)	6	2	5
-				
-				
-				

14. An equilateral triangle has a perimeter of 531 cm. How long is each side?

)			
-			
-			
-			

15. Find the mystery numbers:

a) "I am a multiple of 6. I am greater than 21 and less than 27."

b) "I am divisible by 7. I am less than 25 and I am even."

16. Name two numbers less than 20 that give a remainder of 1 when divided by 4.

17. Four boxes hold 24 bottles. How many bottles will five boxes hold? Show your work.

Number Sense

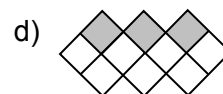
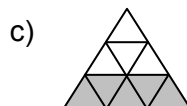
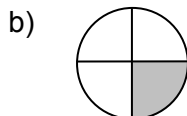
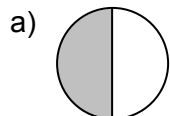
Unit Test

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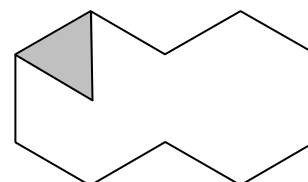
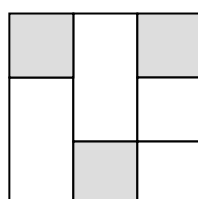
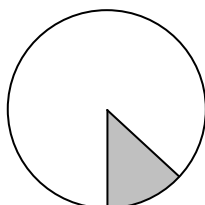
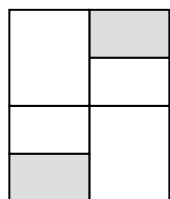
Date: _____

Section C

18. Name the following fractions:



19. What fraction of the figure is the shaded piece?



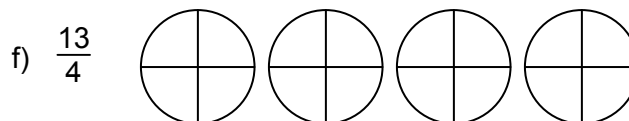
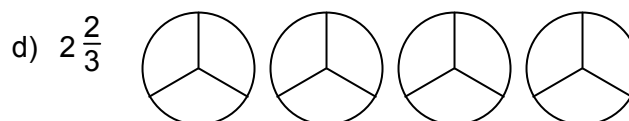
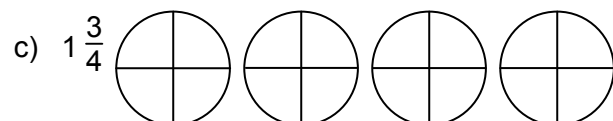
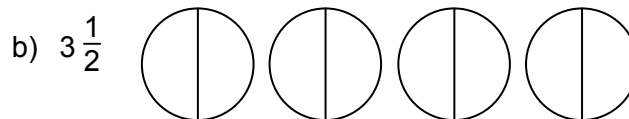
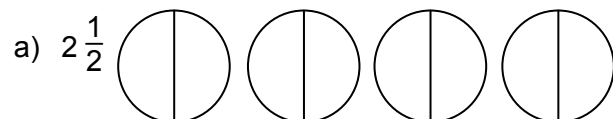
20. Write the fractions in order from least to greatest:

a) $\frac{2}{10}, \frac{1}{10}, \frac{7}{10}, \frac{9}{10}, \frac{5}{10}$

b) $\frac{1}{5}, \frac{1}{2}, \frac{1}{4}$

c) $\frac{2}{3}, \frac{2}{5}, \frac{2}{7}$

21. Shade one piece at a time until you have shaded the amount of pie given. **There may be more pies than you need:**



Number Sense

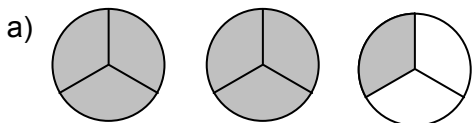
Unit Test

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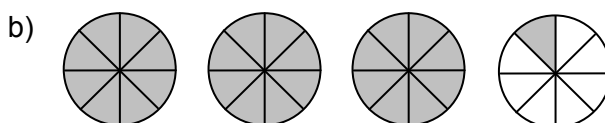
Date: _____

Section C (continued)

22. Write these fractions as both mixed fractions and as improper fractions:



_____ = _____



_____ = _____

23. Find the fraction of each of the following numbers by writing an equivalent division statement. Then skip count to find the answer:

a) $\frac{1}{2}$ of 8

b) $\frac{1}{2}$ of 10

c) $\frac{1}{3}$ of 9

d) $\frac{1}{4}$ of 12

24. Is $\frac{2}{3}$ greater than 1 whole pie or less than 1 whole pie? How do you know?

25. Bottles come in packs of 6. How many bottles are in $3\frac{1}{2}$ packs?

26. Draw a picture (using dots) to show $\frac{4}{5}$ of 10.



27. Which is greater: $2\frac{1}{4}$ or $\frac{5}{2}$? Draw a picture to show your answer:

28. Add or subtract:

a) $\frac{9}{15} - \frac{3}{15} =$

b) $\frac{3}{7} - \frac{2}{7} =$

c) $\frac{7}{9} - \frac{3}{9} =$

Number Sense

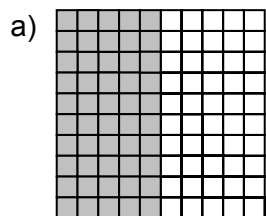
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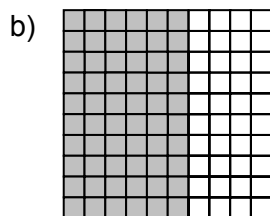
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Section D

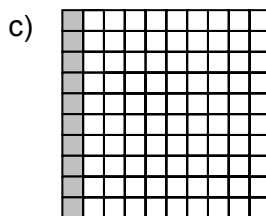
29. Write a fraction for the number of hundredths. Then write a fraction for the number of tenths:



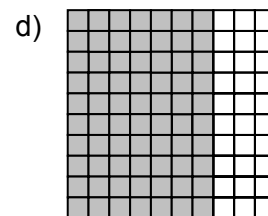
$$\frac{45}{100} = \frac{9}{20}$$



$$\frac{35}{100} = \frac{7}{20}$$



$$\frac{25}{100} = \frac{1}{4}$$



$$\frac{55}{100} = \frac{11}{20}$$

30. Fill in the chart below:

Drawing	Fraction	Decimal	Equivalent Decimal	Equivalent Fraction	Drawing

31. Write the following decimals as fractions:

a) $.2 =$ b) $.35 =$ c) $.04 =$ d) $.8 =$ e) $.6 =$

f) $.02 =$ g) $.72 =$ h) $.4 =$ i) $.23 =$ j) $.25 =$

32. Change the following fractions to decimals:

a) $\frac{82}{100} = . \underline{\quad} \underline{\quad}$ b) $\frac{7}{100} = . \underline{\quad} \underline{\quad}$ c) $\frac{77}{100} =$ d) $\frac{7}{10} =$

Number Sense

Unit Test

Name: _____

Date: _____

Section D (continued)

33. Write a decimal for each of the mixed fractions below:

a) $1 \frac{23}{100} =$

b) $2 \frac{71}{100} =$

c) $8 \frac{7}{10} =$

d) $4 \frac{27}{100} =$

e) $3 \frac{7}{100} =$

f) $17 \frac{8}{10} =$

g) $27 \frac{1}{10} =$

h) $38 \frac{5}{100} =$

34. Write the numbers in order (from least to greatest) by first changing each decimal to a fraction with a denominator of 10:

a) 0.7 , 0.3 , 0.5

b) $\frac{1}{10}$, 0.3 , 0.9

c) $\frac{7}{10}$, 0.3 , $\frac{4}{10}$

d) 0.7 , 0.8 , $\frac{2}{10}$

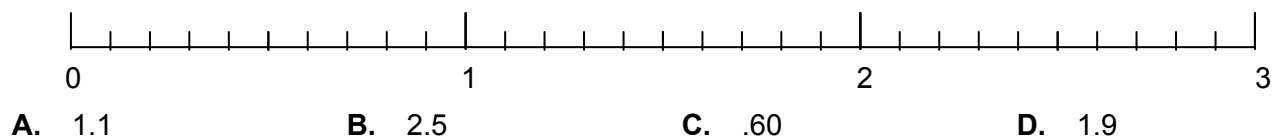
35. Line up and add or subtract the following decimals:

a) $0.32 + 0.17$

b) $0.64 - 0.23$

c) $0.67 - 0.2$

36. Mark each point with an 'X' and label the point with the correct letter:



37. Which is greater, $\frac{23}{10}$ or 2.4? Explain.

38. A racer snake is .36 metres long.

a) What fraction of a metre is the snake?

b) How many cm long would 2 racer snakes be if they were laid end to end?

Number Sense

Unit Test

Name: _____

Date: _____

Section E

39. Sarah has \$4.67 and Uma has \$5.24. How much more money does Uma have than Sarah?

40. Ash has \$25.62. He wants to buy a present for his father for \$17.38 and a book for himself for \$5.97. Does he have enough money to buy both the book and the gift?

41. Estimate by rounding each amount to the nearest dollar before performing the operation:

42) \$34.21 Estimate: _____
 – \$26.57

42) \$47.93 Estimate: _____
 + \$12.44

Actual:

\$.		
– \$.		

Actual:

\$.		
+ \$.		

42. Erika had \$10.00. She bought a set of pencil crayons for \$7.89. Estimate her change:

43. Fill in the blanks.

a) _____ is .1 more than .8 b) _____ is .1 less than .6 c) 2.3 + _____ = 2.4

d) 3.71 – _____ = 3.61 e) 3.48 – _____ = 3.47 f) 4.53 + _____ = 4.54







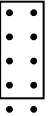
Section A

- 4 friends
- 7 envelopes
- Grapefruits; 7; 6
 - Kids; 3; 10
- $15 \div 5 = 3$;
Each friend gets 3 tickets.
- $15 \div 5 = 3$;
 $5 + 5 + 5 = 15$

Section B

- $18 \div 3 = 6$; 6
 - $5 \times 4 = 20$; 20
 - $8 \times 3 = 24$; 24
 - $12 \div 6 = 2$; 2
- $20 \div 4 = 5$;
5 people in each van
 - $6 \times 3 = 18$;
18 marbles
 - $15 \div 5 = 3$;
3 flowers in each pot
 - $4 \times 2 = 8$;
8 chairs
- 2 groups of 4 apples
OR
4 groups of 2 apples
- 4 R4
 - 4 R1
 - 3 R4
 - 8 R1
- 24 R2
 - 13 R2
 - 13 R1
 - 14
 - 16 R4
 - 16
 - 32
 - 14 R5
- 14 R2;
They will need 15 canoes.
- Alexa: $73 \div 6 = 12$ R1
Mike: $46 \div 4 = 11$ R2
So, Mike had more apples left over.
- 156 R1
- Each side of the triangle is 177 cm long ($531 \div 3$).
- 24
 - 14
- Four possibilities so answers may vary:
5, 9, 13 and 17
- Five boxes will hold 30 bottles.
Approach may vary –
for example:
 $24 \div 4 = 6$ bottles per box
 $6 \times 5 = 30$ bottles

Section C

- $\frac{1}{2}$
 - $\frac{1}{4}$
 - $\frac{5}{9}$
 - $\frac{3}{10}$
- $\frac{2}{8} = \frac{1}{4}$
 - $\frac{1}{8}$
 - $\frac{3}{9} = \frac{1}{3}$
 - $\frac{1}{12}$
- $\frac{1}{10}, \frac{2}{10}, \frac{5}{10}, \frac{7}{10}, \frac{9}{10}$
 - $\frac{1}{5}, \frac{1}{4}, \frac{1}{2}$
 - $\frac{2}{7}, \frac{2}{5}, \frac{2}{3}$
- 
 - 
 - 
 - 
 - 
 - 
- $2\frac{1}{3} = \frac{7}{3}$
 - $3\frac{1}{8} = \frac{25}{8}$
- $8 \div 2 = 4$
 - $10 \div 2 = 5$
 - $9 \div 3 = 3$
 - $12 \div 4 = 3$
- $\frac{2}{3} < 1$. Teacher to check explanation.
- 21 bottles
- 

Section D

- $\frac{5}{2}$ is greater than $2\frac{1}{4}$
Teacher to check explanation.
- $\frac{6}{15}$
 - $\frac{5}{7}$
 - $\frac{4}{9}$
- $\frac{50}{100} = \frac{5}{10}$
 - $\frac{60}{100} = \frac{6}{10}$
 - $\frac{10}{100} = \frac{1}{10}$
 - $\frac{70}{100} = \frac{7}{10}$
- $\frac{7}{10}$; .7; .70; $\frac{70}{100}$
* Teacher to check drawing
 $\frac{10}{10}$; 1.0; 1.00; $\frac{100}{100}$
* Teacher to check drawing
- $\frac{2}{10}$
 - $\frac{35}{100}$
 - $\frac{4}{100}$
 - $\frac{8}{10}$
 - $\frac{6}{10}$
 - $\frac{2}{100}$
 - $\frac{72}{100}$
 - $\frac{4}{10}$
 - $\frac{23}{100}$
 - $\frac{25}{100}$
- .82
 - .07
 - .77
 - .7
- 1.23
 - 2.71
 - 8.7
 - 4.27
 - 3.07
 - 17.8
 - 27.1
 - 38.05

34. a) $\frac{3}{10}, \frac{5}{10}, \frac{7}{10}$
 b) $\frac{1}{10}, \frac{3}{10}, \frac{9}{10}$
 c) $\frac{3}{10}, \frac{4}{10}, \frac{7}{10}$
 d) $\frac{2}{10}, \frac{7}{10}, \frac{8}{10}$

35. a) 0.49
 b) 0.41
 c) 0.47



37. $\frac{23}{10} = 2 \frac{3}{10} = 2.3 < 2.4$

So 2.4 is greater.

38. a) $\frac{36}{100}$
 b) 72 cm

Section E

39. Uma has 57¢ more.

40. Yes. He needs \$23.36
 (< \$25.62)

41. a) Estimate:
 $\$34 - \$27 = \$7$
 Actual:
 $\$34.21$
 $- \underline{\$26.57}$
 $\$7.64$

b) Estimate:
 $\$48 - \$12 = \$60$
 Actual:
 $\$47.93$
 $+ \underline{\$12.44}$
 $\$60.47$

42. Estimate \$2
 (Actual \$2.11)

43. a) .9
 b) .5
 c) .1
 d) .1
 e) .01
 f) .01

Measurement

Unit Test

Name: _____

Date: _____

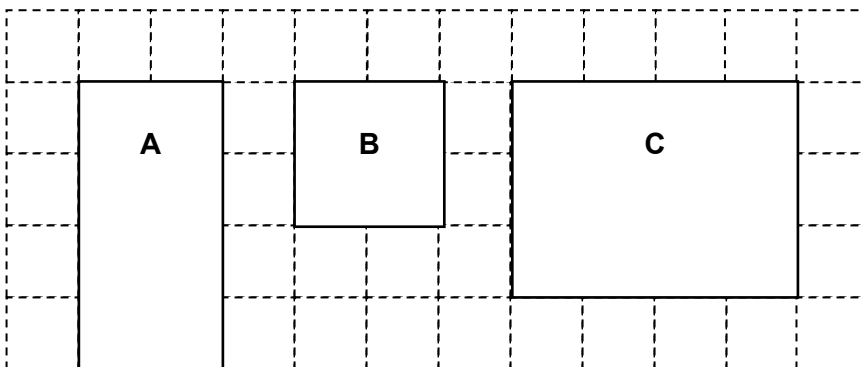
Section A

- Find the area (in square units) of each of the given shapes:

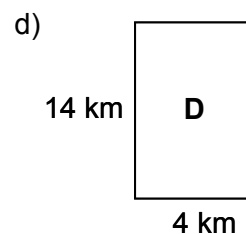
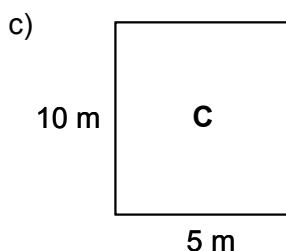
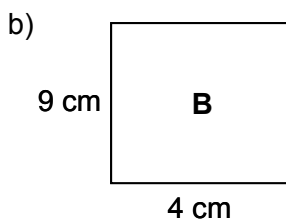
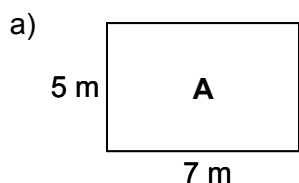
Area of A = _____ units²

Area of B = _____ units²

Area of C = _____ units²



- Calculate the area of each rectangle (be sure to include the units). Then, by letter, create an ordered list of the rectangles from greatest to least area. Pay attention to the units!



List of areas (by letter, from greatest to least): _____

- Find the area of the rectangle with the following dimensions:

a) width: 5 m length: 7 m

b) width: 2 m length: 9 m

c) width: 6 cm length: 8 cm

- If you know the length and width of a rectangle, how can you find its area?

- A rectangle has an area of 10 cm² and a length of 5 cm. What is its width? Explain how you found your answer:




Measurement

Unit Test

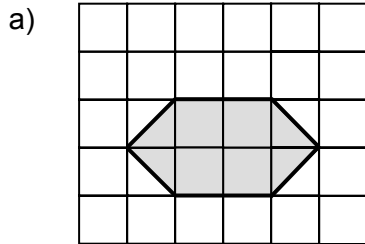
Name: _____

Date: _____

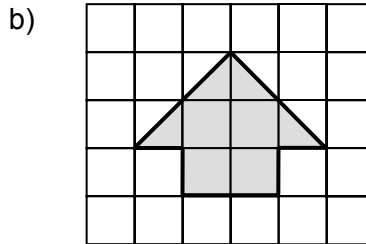
Section A (continued)

6. Two half squares   cover the same area as a whole square .

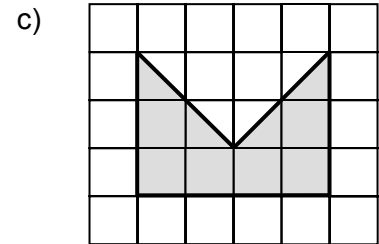
Count each pair of half squares as a whole square to find the area shaded:



Area = ____ whole squares

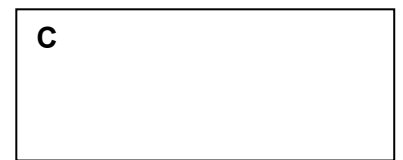
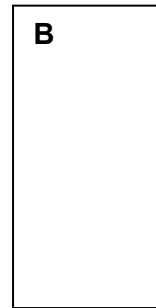
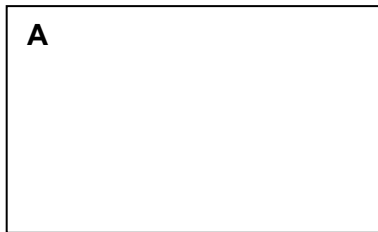


Area = ____ whole squares



Area = ____ whole squares

7. For each rectangle, estimate and then measure the length and width with a ruler. Record your answers in the chart:



Rectangle	Estimated Perimeter	Estimated Area	Length	Width	Actual Perimeter	Actual Area
A	cm	cm ²	cm	cm	cm	cm ²
B						
C						

8. Karen wants to make a rectangular flower bed with width 2 m and length 3 m.

a) What is the perimeter of the bed?

b) Fence costs \$2 for each metre. How much will a fence for the flower bed cost?

c) Karen wants to plant 3 flowers in each square metre of the flower bed. How many flowers will she need to buy?

Measurement

Unit Test

Name: _____

Date: _____

Section B

9. Change the following measurements to grams:

a) 3 kg = _____

b) 9 kg = _____

c) 17 kg = _____

10. A house cat weighs about 5 kg. What is its mass in grams? _____

11. A penny weighs 2 grams, a nickel weighs 4 grams and a loonie weighs 7 grams:

a) How many pennies weigh as much as 4 nickels?

b) How many loonies weigh as much as 7 nickels?

12. What unit is more appropriate to measure each item? Circle the appropriate unit:



grams or kilograms?



grams or kilograms?



grams or kilograms?

13. Check off the appropriate box. Would you use grams or kilograms to weigh...

a) a moose?

 g kg

b) a desk?

 g kg

c) a piece of cheese?

 g kg

d) a tiny bird?

 g kg

a) a pencil?

 g kg

f) yourself?

 g kg

14. a) A baby elephant weighed 160 kilograms when it was born. It grew at a rate of 8 kilograms each week. How much did the baby elephant weigh when it was 4 weeks old?

b) Cucumber and pea seeds weigh 2 grams each and radish seeds weigh 3 grams each. Joel bought 8 cucumber seeds, 12 pea seeds and 3 radish seeds. How much did his seeds weigh altogether?

Section A

- Area of A = 8 units²
Area of B = 4 units²
Area of C = 12 units²
- 35 m²
 - 36 cm²
 - 50 m²
 - 56 km²
D, C, A, B
- 35 m²
 - 18 m²
 - 48 cm²
- To get the area, multiply the length by the width (A = l × w).
- Width = 2 cm
To find, skip count by 5's until you 'hit' 10 or divide 10 by 5.
- 6 whole squares
 - 6 whole squares
 - 8 whole squares
- Actual measurements:

	L	W	P	A
A	3 cm	5 cm	16 cm	15 cm ²
B	2 cm	4 cm	12 cm	8 cm ²
C	5 cm	2 cm	14 cm	10 cm ²

- 10 m
 - \$20
 - 18 flowers

Section B

- 3 000 g
 - 9 000 g
 - 17 000 g
- 5 000 g
- 8 pennies
 - 4 loonies
- kilograms; grams; kilograms
- kg
 - kg
 - g
 - g
 - g
 - kg
- 192 kg
 - 49 g
- 5 000 mL
 - 2 000 mL
 - 12 000 mL
 - 47 000 mL
- L
 - mL
 - L
- Set a) has the greatest capacity – after you cross out the 'shared' containers, you are left with 2 large containers in a) and 2 small containers in b); 2 large are greater in capacity than 2 small.
- 10 containers
(1000 ÷ 100 = 10)
 - 2 containers
(1000 ÷ 500 = 2)
 - 4 containers
(1000 ÷ 250 = 4)
- 8 cubes
 - 12 cubes
 - 27 cubes

To count the boxes you can't see, you might count the "front" and multiply by the number of layers.

- Capacity:
2 L soy milk;
200 mL yogurt
Mass:
300 g strawberries;
1 kg bananas
 - 1.3 kg / 1 300 g
 - 2.2 L / 2 200 mL

Probability & Data Management

Unit Test

Name: _____

Date: _____

Section A

1. Find the range of the following data sets:

a) 45, 23, 14, 95, 44, 7

Range: ____ to ____

b) 123, 46, 35, 70, 21, 354

Range: ____ to ____

2. Find the mean of the following data sets:

a) 3, 5, 7, 11, 14

Mean: _____

b) 16, 5, 11, 3, 20

Mean: _____

3. Find the mode of the following data sets:

a) 3, 8, 8

Mode: _____

c) 7, 7, 4, 5, 7, 4, 4, 7

Mode: _____

Stem	Leaf
3	227
4	3344
5	18889
6	0344

Mode: _____

4. Find the median of the following data sets:

a) 3, 4, 10, 12, 17

Median: _____

b) 3, 11, 8, 10, 4

Median: _____

c) 18, 5, 18, 76, 10, 92

Median: _____

d) 27, 3, 1, 85, 553, 23

Median: _____

Probability & Data Management

Unit Test

Name: _____

Date: _____

Section A (continued)

5. Mrs. Lynch gave her students a spelling test (marked out of 20) and entered the marks in the chart. Make a stem and a leaf plot of this data.

17	5	18	10	12	15	10	16	29
30	25	19	19	9	20	19	20	30

Stem	Leaves

Probability & Data Management

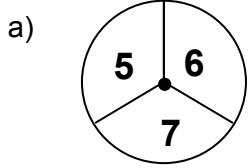
Name: _____

Unit Test

Date: _____

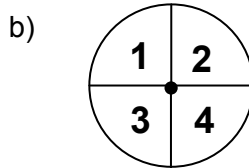
Section B

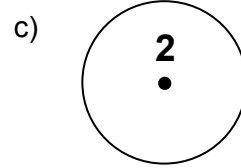
6. What are the possible outcomes for these spinners? (The first one is done for you.)



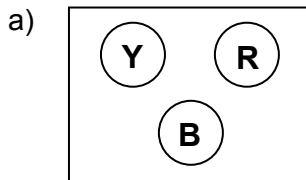
You spin 5,

6 or 7

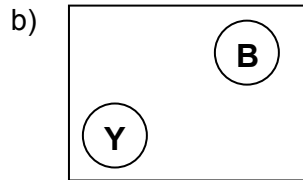




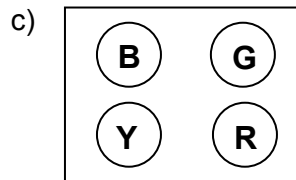
7. You draw a ball from a box. How many different outcomes are there in each of the following cases?

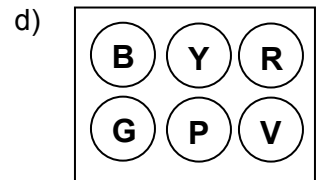


_____ outcomes



_____ outcomes

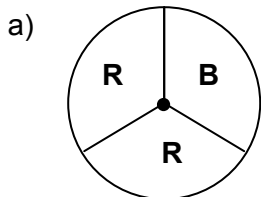




8. Fill in the missing numbers:

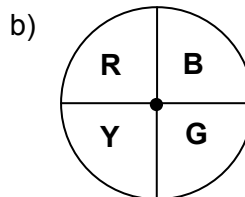
- a) $\frac{1}{3}$ of 39 is _____ b) $\frac{1}{3}$ of 42 is _____ c) $\frac{1}{3}$ of 75 is _____ d) $\frac{1}{4}$ of 8 is _____
- e) $\frac{1}{4}$ of 12 is _____ f) $\frac{1}{4}$ of 36 is _____ g) $\frac{1}{4}$ of 52 is _____ h) $\frac{1}{4}$ of 84 is _____

9. For each spinner below, what fraction of your spins would you expect to be red?



I would expect

of the spins to be red.



10. If you spun the spinner in Question 9 a) twelve times, how many times would you expect to spin red? Explain.

Geometry

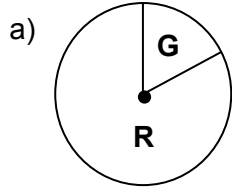
Unit Test

Name: _____

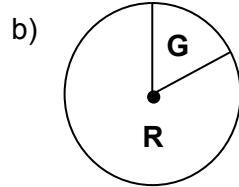
Date: _____

Section B (continued)

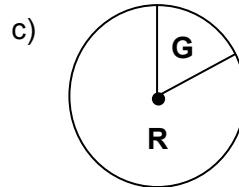
11. Using the words "certain", "likely", "unlikely" or "impossible", describe the likelihood of...



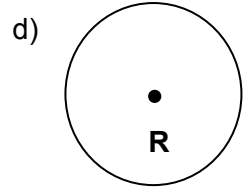
spinning red



spinning green

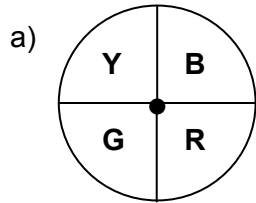


spinning yellow

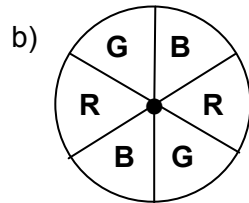


spinning red

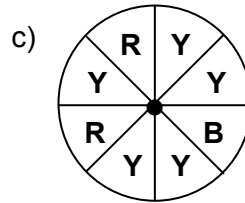
12. Describe each outcome as "impossible", "unlikely", "likely" or "certain":



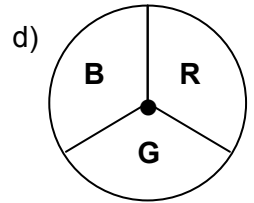
spinning green



spinning red



spinning yellow



spinning yellow

13. Explain your answer for Question 12 c):

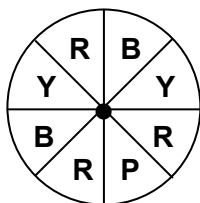
14. Name an event that is...

a) certain: _____

b) impossible: _____

15. Dennis and Kevin are playing with the spinner below. If they spin red, Kevin wins, if they spin yellow, Dennis wins. Is their game fair? If not who has a better chance of winning?

Explain your answer.



Section A

1. a) 7 to 95
b) 21 to 354
2. a) 8
b) 11
3. a) 8
b) 7
c) 58
4. a) 10
b) 8
c) 18
d) 25 (the average of 23 and 27)

5.

Stem	Leaves
0	57
1	001568999
2	00059
3	00

Section B

6. b) You spin a 1, 2, 3 or 4.
c) You spin a 2.
7. a) 3 outcomes
b) 2 outcomes
c) 4 outcomes
d) 6 outcomes
8. a) 13
b) 14
c) 25
d) 2
e) 3
f) 9
g) 13
h) 21
9. a) $\frac{2}{3}$
b) I would expect $\frac{1}{4}$ of the spins to be red.
10. $\frac{2}{3}$ of the spinner is Red, so $\frac{2}{3}$ of 12 spins will be red. $\frac{2}{3}$ of 12 is 8, so 8 times should produce red.
11. a) Likely
b) Unlikely
c) Impossible
d) Certain
12. a) Unlikely
b) Unlikely
c) Likely
d) Impossible
13. Answers will vary. Sample: More than half a spinner is yellow, so it is likely to spin yellow.
14. Answers will vary. Teacher to check.
15. The game is not fair, Kevin has a better chance of winning, since 3 out of 8 possible outcomes are red, and only 2 are yellow.

Geometry

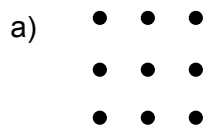
Unit Test

Name: _____

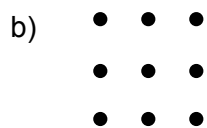
Date: _____

Section A

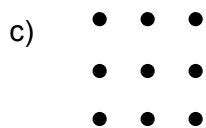
1. Draw lines in the given column and row. Then circle the dot where the two lines meet:



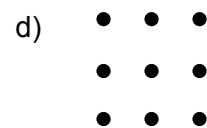
Column 1
Row 3



Column 2
Row 3

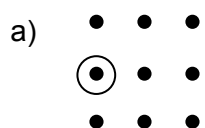


Column 1
Row 2

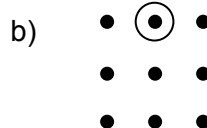


Column 3
Row 1

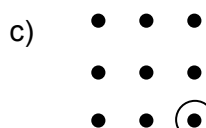
2. Identify the column and row for the circled dot:



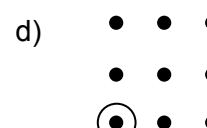
Column _____
Row _____



Column _____
Row _____



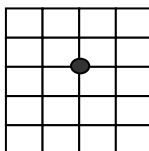
Column _____
Row _____



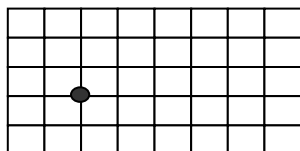
Column _____
Row _____

3. Slide the dot...

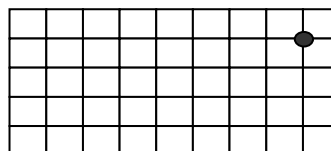
a) 3 units down



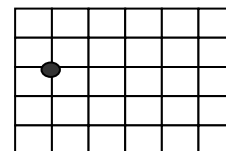
b) 5 units right



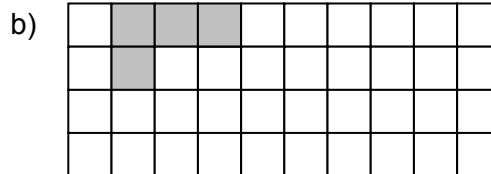
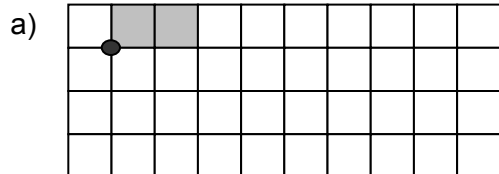
c) 6 units left; 4 units down



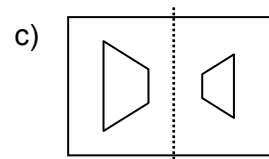
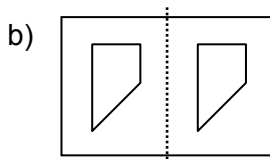
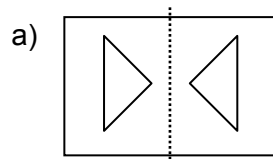
d) 3 units right; 1 unit up



4. Slide each figure 5 boxes to the right and 2 boxes down:



5. Circle the pictures that do not show reflections:



d) How do you know the figures you circled aren't reflections?

Geometry

Unit Test

Name: _____

Date: _____

Section A (continued)

6. Answer the following questions using the coordinate system:

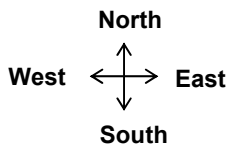
4				city	valley
3	lake				
2			hill		
1					
	A	B	C	D	E

a) What would you find in square (A,3)?

b) What would you find if you travelled 2 grid squares west of the valley?

c) Give the coordinates of the city:

d) Describe how to get from the city to the lake:



e) Describe how to get from the hill to the city:

7. Use the following clues to figure out where all the children sit:

		Eric	
	Lars		Indra
Peter	Anne	Yen	

Walk 2 desks down and 1 desk right from Eric to find John's seat.

Samir is 1 desk left of Eric.

Sally is between Lars and Indra.

Walk 2 desks right and 1 desk up from Lars to find Mary's desk.

Emma is 2 desks up from Peter.

Walk 1 desk up and 1 desk left from Anne to find Janet.

Geometry

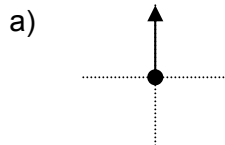
Unit Test

Name: _____

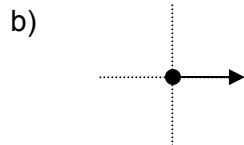
Date: _____

Section A (continued)

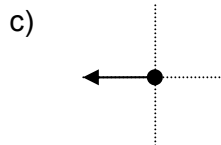
8. Show where the arrow or the shape would be after each turn:



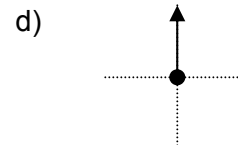
$\frac{1}{4}$ turn clockwise



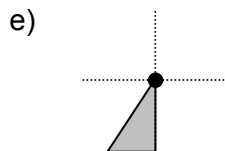
$\frac{1}{2}$ turn clockwise



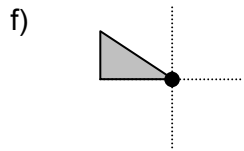
$\frac{3}{4}$ turn clockwise



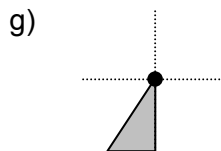
1 whole turn clockwise



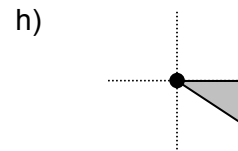
$\frac{1}{4}$ turn counter clockwise



$\frac{1}{2}$ turn counter clockwise



$\frac{3}{4}$ turn counter clockwise



1 whole turn counter clockwise

Geometry

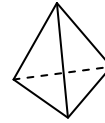
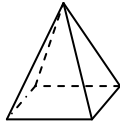
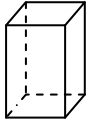
Unit Test

Name: _____

Date: _____

Section B

9. Match each shape to its name:



square
pyramid

cylinder

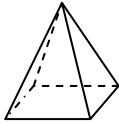
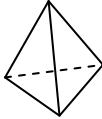
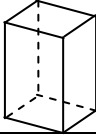
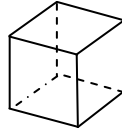
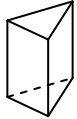
triangular
prism

cone

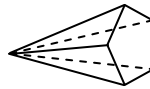
rectangular
prism

triangular
pyramid

10. Fill in the chart for each figure:

					
Number of Faces					
Number of Vertices					
Number of Edges					

11. a) Fill in the chart below:



Property	Pentagonal Pyramid	Square Pyramid
Number of faces		
Number of edges		
Number of vertices		
Number of bases		
Shape of base		
Shape of faces that are not bases		

b) Use your work in part a) to say how the shapes are the same and how they are different.

Geometry

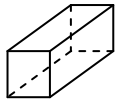
Unit Test

Name: _____

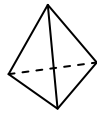
Date: _____

Section C

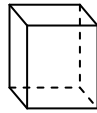
12.



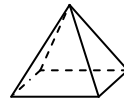
A



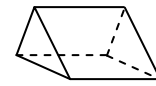
B



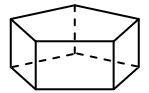
C



D



E



F

Choose one property of 3-D figures from each list below and use them to sort the shapes above:

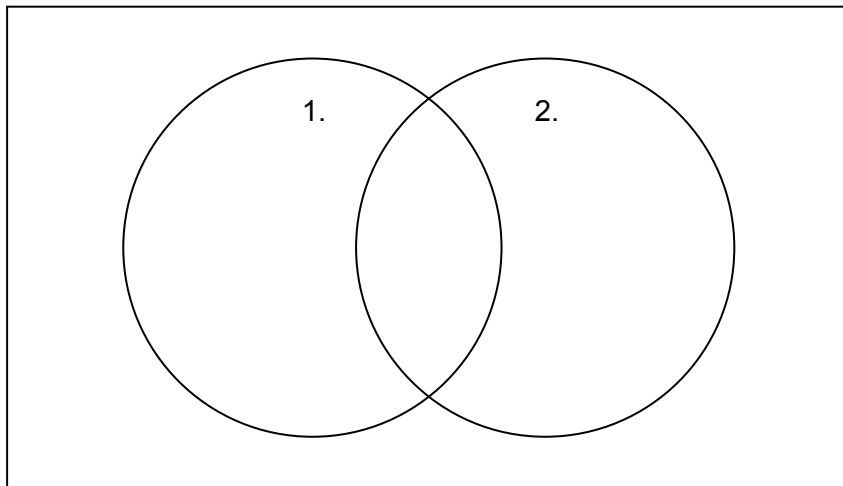
List 1

- Prisms
- Pyramids
- Have 1 base
- Have 2 bases

List 2

- Has at least 1 triangular face
- Has at least one rectangular face
- 8 edges or more
- 6 vertices or more.

Property	Figures with this property:
1.	
2.	



13. Match the description of the figure with its name:

- _____ cone
- _____ triangular prism
- _____ cube
- _____ cylinder
- _____ triangular pyramid

- A.** I have 6 congruent faces.
- B.** I have 5 faces: 2 triangles and 3 rectangles.
- C.** I have 4 faces. Each face is a triangle.
- D.** I have 2 circular bases and a curved face.
- E.** I have 1 circular base and a curved face.

Geometry

Unit Test

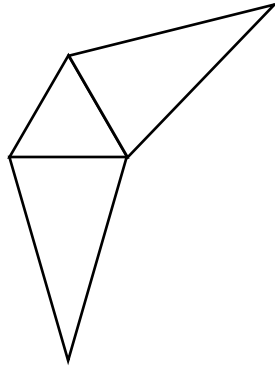
Name: _____

Date: _____

Section C (continued)

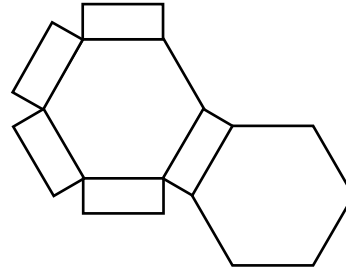
14. Draw the missing face for each net. Fill in the names of the shapes.

a)



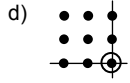
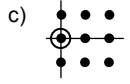
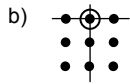
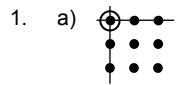
This is a net of a

b)

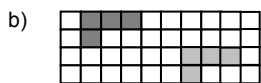
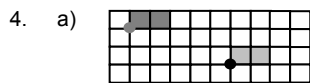
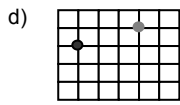
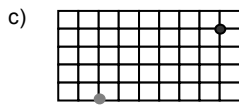
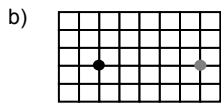
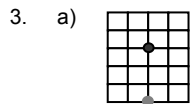


This is a net of a

Section A



2. a) Column 1
Row 2
b) Column 2
Row 3
c) Column 3
Row 1
d) Column 1
Row 1



5. a) Not circled
b) Circled
c) Circled

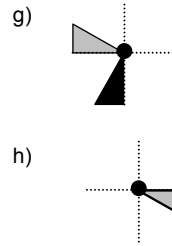
- d) Picture b) shows a slide, not a reflection. The shapes are the same size and shape, but the vertices are not the same distance from the mirror line.
The shapes in Picture c) – though facing opposite directions – don't have the same size.

6. a) Lake
b) Hill
c) (D, 4)
d) 1 square south, then 3 squares west (or in reverse order)
e) 2 squares north, then 1 square east (or in reverse order)

7.

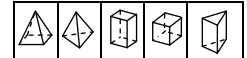
Emma	Samir	Eric	Mary
Janet	Lars	Sally	Indra
Peter	Anne	Yen	John

8. a)
- b)
- c)
- d)
- e)
- f)



Section B

9. Shapes, from left to right:
- Rectangular (or square) prism
 - Square pyramid
 - Cone
 - Cylinder
 - Triangular pyramid
 - Triangular prism
- 10.



Faces	5	4	6	6	5
Vertices	5	4	8	8	6
Edges	8	6	12	12	9

11. a)

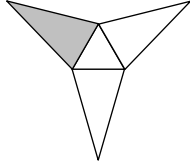
	PP	SP
Faces	6	5
Edges	10	8
Vertices	6	5
# of bases	1	1
Shape of base		
Shape of faces that are not bases		

- b) Answers will vary.
Description should include:
Same:
- pyramids
 - both have 1 base,
 - non-base faces are triangles in both shapes
- Different
- # of faces, vertices, edges
 - Shape of base

Section C

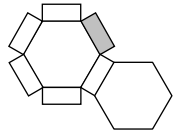
12. Answers will vary.
Teacher to check.
13. E Cone
B Triangular Prism
A Cube
D Cylinder
C Triangular Pyramid
14. Pictures may vary.

a)

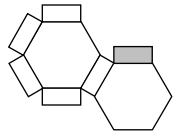


Triangular
pyramid

b)



or



Hexagonal
prism