

## Math Unit 1 Study Guide

1. Write the following:

a. An even number between 110 and 125 \_\_\_\_\_

b. A prime number between 20 and 25 \_\_\_\_\_

c. A composite number that is less than 90 \_\_\_\_\_

d. An odd number between 20 and 30 \_\_\_\_\_

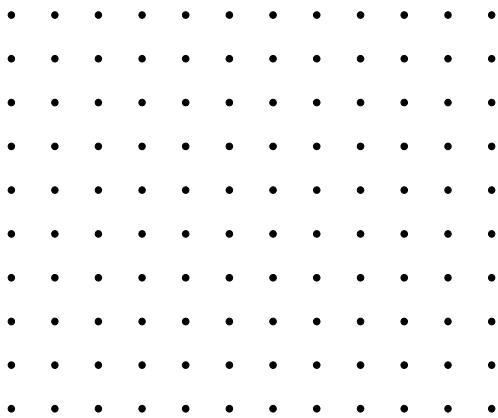
2. Is 462 divisible by 2? by 3? by 4? by 5? by 6? by 9? by 10?

3. How much is 12 squared? \_\_\_\_\_

4. What number squared equals 25? \_\_\_\_\_

5. How much is the square root of 16? \_\_\_\_\_

6. William has 15 tulip bulbs. He wants to plant them in a rectangular array consisting of *at least* 3 rows with *at least* 3 tulips in each row. On the grid below, draw the possible arrays.



7. List all the factors of 40. \_\_\_\_\_

8. Is 5 a prime or a composite number? \_\_\_\_\_ How can you tell?

9. Circle the factors of 45 that are prime numbers.

1, 3, 5, 9, 15, 45

10. Pretend that you are playing *Factor Captor* on the number grid below. The crossed-out numbers have already been picked. Which number would you choose next? Why?

<del>1</del>	2	<del>3</del>	4	<del>5</del>
6	<del>7</del>	8	9	10
11	12	13	14	15
16	17	18	<del>19</del>	20
<del>21</del>	22	<del>23</del>	24	<del>25</del>
26	27	28	29	30

11. Use the following clues to figure out on what date Linda had her birthday.

- The date is an odd number.
- The date is not a square number.
- The date is a prime number.
- The date is a multiple of 3.

JULY

Sun	Mon	Tue	Wed	Thur	Fri	Sat
	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			

12. Write the 7-digit number that has a

- 3 in the ones place,
- 4 in the thousands place,
- 9 in the ten-thousands place,
- 2 in the tenths place,
- and 7 in all of the remaining places.

\_\_\_\_\_ , \_\_\_\_\_ . \_\_\_\_\_

13. Write 918.35 in words.

**The following items are on Part B of the test.**

14. Write the prime factorization of 27.

15. Write the prime factorization of 60 using exponents.

16. Fill in the missing numbers.

a.  $10^2 =$  \_\_\_\_\_

b.  $25^2 =$  \_\_\_\_\_

c. \_\_\_\_\_  $= 8^2$

d. \_\_\_\_\_  $^2 = 49$

e. \_\_\_\_\_  $^2 = 144$

f.  $6 \times 6 =$  \_\_\_\_\_  $^2$

17. Write a number between 100 and 150 that is divisible by 3 but not by 2.

18. Write a number between 100 and 200 that is divisible by 2, 3, and 5.