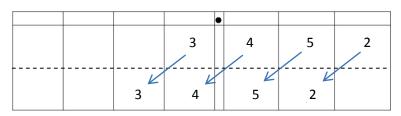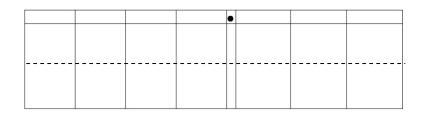Name _____   Date _____

1. Record the digits of the first factor on the top row of the place value chart. Draw arrows to show how the value of each digit changes when you multiply. Record the product on the second row of the place value chart. The first one has been done for you.

    a. 3.452 x 10 = ____34.52____

				•			
			3		4	5	2
		3	4		5	2	

    b. 3.452 x 100 = _____

				•			
			3				

    c. 3.452 x 1000 = _____

				•			

    d. Explain how and why the value of the 5 changed in (a), (b), and (c).
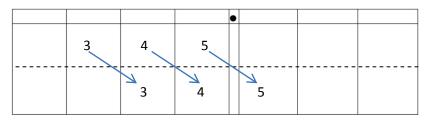
Lesson 1:   Reason concretely and pictorially using place value understanding
to relate adjacent base ten units from millions to thousandths.
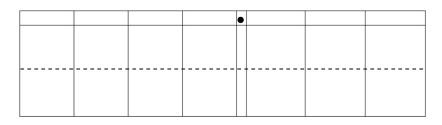Date: 8/5/13

engage^ny   1.A.12

2. Record the digits of the dividend on the top row of the place value chart. Draw arrows to show how the value of each digit changes when you divide. Record the quotient on the second row of the place value chart. The first one has been done for you.

a. 345 ÷ 10 = ___34.5___

					●			
	3	4	5					
		3	4	5				

b. 345 ÷ 100 =_____

					●			

c. 345 ÷ 1000= _____

					●			

d. Explain how and why the value of the 4 changed in the quotients in (a), (b), and (c).

COMMON CORE

Lesson 1:   Reason concretely and pictorially using place value understanding to relate adjacent base ten units from millions to thousandths.

Date: 8/5/13

engage^ny   1.A.13

3. A manufacturer made 7,234 boxes of coffee stirrers. Each box contains 1000 stirrers. How many stirrers did they make? Explain your thinking and include a statement of the solution.

4. A student used his place value chart to show a number. After the teacher instructed him to multiply his number by 10, the chart showed 3200.4. Draw a picture of what the place value chart looked like at first.

				●		

   a. Explain how you decided what to draw on your place value chart. Be sure to include your reasoning about how the value of the digits was affected by the multiplication. Use words, pictures, or numbers.

5. A microscope has a setting that magnifies an object so that it appears 100 times as large when viewed through the eyepiece. If a tiny insect is 0.095 cm long, how long will the insect appear in centimeters through the microscope? Explain how you know.

COMMON CORE

Lesson 1: Reason concretely and pictorially using place value understanding to relate adjacent base ten units from millions to thousandths.

Date: 8/5/13

engage^{ny}

1.A.14

Name _____   Date _____

1. Solve.

    a. 54,000 x 10 = _____

    b. 54,000 ÷ 10 = _____

    c. 8.7 x 10 = _____

    d. 8.7 ÷ 10 = _____

    e. 0.13 x 100 = _____

    f. 13 ÷ 1000 = _____

    g. 3.12 x 1000 = _____

    h. 4031.2 ÷ 100 = _____

2. Find the products.

    a. 19,340 x 10   = _____

    b. 19,340 x 100   = _____

    c. 19,340 x 1000 = _____

    d. Explain how you decided on the number of zeros in the products for (a), (b), and (c).

3. Find the quotients.

    a. 152 ÷ 10 = _____

    b. 152 ÷ 100 = _____

    c. 152 ÷ 1000 = _____

    d. Explain how you decided where to place the decimal in the quotients in (a), (b), and (c).

COMMON CORE

Lesson 2:   Reason abstractly using place value understanding to relate
            adjacent base ten units from millions to thousandths.
Date: 6/28/13

engage^ny   1.A.25

4. Janice thinks that 20 hundredths is equivalent to 2 thousandths because 20 hundreds is equal to 2 thousands. Use words and a place value chart to correct Janice's error.

5. Canada has a population that is about 1/10 as large as the United States. If Canada's population is about 32 million, about how many people live in the United States? Explain the number of zeros in your answer.

Lesson 2:   Reason abstractly using place value understanding to relate
              adjacent base ten units from millions to thousandths.
Date: 6/28/13

engage^ny   1.A.26

Name _____   Date _____

1. Write the following in exponential form (e.g., $100 = 10^2$).

   a. 10,000 = _____   d. 100 x 100 = _____

   b. 1000   = _____   e. 1,000,000 = _____

   c. 10 x 10 = _____   f. 1000 × 1000 = _____

2. Write the following in standard form (e.g., $5 \times 10^2 = 500$).

   a. 9×10^3 = _____   e. 4.025×10^3 = _____

   b. 39×10^4 = _____   f. 40.25×10^4 = _____

   c. $7200 \div 10^2$ = _____   g. $725 \div 10^3$ = _____

   d. $7,200,000 \div 10^3$ = _____   h. $7.2 \div 10^2$ = _____

3. Think about the answers to Problem 2(a–d). Explain the pattern used to find an answer when you multiply or divide a whole number by a power of 10.

4. Think about the answers to Problem 2(e–h). Explain the pattern used to place the decimal in the answer when you multiply or divide a decimal by a power of 10.

COMMON CORE

Lesson 3:   Use exponents to name place value units and explain patterns in the placement of the decimal point.

Date: 6/28/13

engage^{ny}   **1.A.39**

5. Complete the patterns.

    a. 0.03   0.3   _____   30   _____   _____

    b. 6,500,000   65,000   _____   6.5   _____

    c. _____   9,430   _____   94.3   9.43   _____

    d. 999   9990   99,900   _____   _____   _____

    e. _____   7.5   750   75,000   _____   _____

    f. Explain how you found the missing numbers in set (b). Be sure to include your reasoning about the number of zeros in your numbers and how you placed the decimal.

    g. Explain how you found the missing numbers in set (d). Be sure to include your reasoning about the number of zeros in your numbers and how you placed the decimal.

6. Shaunnie and Marlon missed the lesson on exponents. Shaunnie incorrectly wrote $10^5 = 50$ on her paper, and Marlon incorrectly wrote $2.5 \times 10^2 = 2.500$ on his paper.

    a. What mistake has Shaunnie made? Explain using words, numbers, and pictures why her thinking is incorrect and what she needs to do to correct her answer.

    b. What mistake has Marlon made? Explain using words, numbers, and pictures why his thinking is incorrect and what he needs to do to correct his answer.

COMMON CORE

Lesson 3:   Use exponents to name place value units and explain patterns in the placement of the decimal point.
Date: 6/28/13

engage^{ny}   **1.A.40**

Name _____ Date _____

1. Convert using an equation with an exponent.

    a. 3 meters to centimeters   _____ = _____ cm
    b. 900 centimeters to meters   _____ = _____ m

    c. 8.1 liters to milliliters   _____ = _____ ml
    d. 537 milliliters to liters   _____ = _____ l

    e. 90.5 kilometers to meters   _____ = _____ m
    f. Convert 23 meters to kilometers. _____ = _____ km

    g. 0.4 kilograms to grams   _____ = _____ g
    h. 80 grams to kilograms   _____ = _____ kg

    i. Circle the conversion factor in each equation above. Explain why converting from meters to centimeters uses a different conversion factor than converting from liters to milliliters, kilometers to meters, and kilograms to grams.

2. Read each aloud as you write the equivalent measures.

    a. 3.5 km =   _____ km _____ m

    b. 1.23 l =   _____ l _____ ml

    c. 2.002 kg =   _____ kg _____ g

    d. 3 ml =   _____ l

    e. 3012 g =   _____ kg

    f. _____ m =   2.10 cm

3. The length of the bar for a high jump competition must always be 4.75 m. Express this measurement in millimeters. Explain your thinking using an equation that includes an exponent.

4. A honey bee's length measures 1 cm. Express this measurement in meters.

    a. Explain your thinking using a place value chart.

    b. Explain your thinking using an equation that includes an exponent.

5. James drinks 800 ml of water each day during his workout. Henry drinks 600 ml daily during his workout. If James works out 3 days each week, and Henry works out 5 days each week, how many liters do the boys drink in all each week while working out?

6. Katrina needs to tie ribbons around 10 flower arrangements for a party. Each arrangement requires 1.2 m of ribbon. She also needs 325 cm of ribbon to tie to the balloons for the party. If Katrina buys 15m of ribbon, will she have enough? If so, how much ribbon (in meters) will she have left? If not, how many more meters of ribbon will she need to buy?

COMMON CORE

Lesson 4: Use exponents to denote powers of 10 with application to metric conversions.
Date: 6/28/13

engage^ny   1.A.51

Name _____   Date _____

1. Express as decimal numerals. The first one is done for you.

a. four thousandths	0.004
b. twenty-four thousandths	
c. one and three hundred twenty-four thousandths	
d. six hundred eight thousandths	
e. six hundred and eight thousandths	
f. $\dfrac{46}{1000}$	
g. $3\dfrac{946}{1000}$	
h. $200\dfrac{904}{1000}$	

2. Express in words.

   a. 0.005

   b. 11.037

   c. 403.608

3. Write the number on a place value chart then write it in expanded form using fractions or decimals to express the decimal place value units. The first one is done for you.

   a. 35.827

tens	ones		tenths	hundredths	thousandths
3	**5**	●	**8**	**2**	**7**

$35.827 = 3 \times 10 + 5 \times 1 + 8 \times \left(\dfrac{1}{10}\right) + 2 \times \left(\dfrac{1}{100}\right) + 7 \times \left(\dfrac{1}{1000}\right)$ *or*

$\quad\quad\quad = 3 \times 10 + 5 \times 1 + 8 \times 0.1 + 2 \times 0.01 + 7 \times 0.001$

COMMON CORE   **Lesson 5:** Name decimal fractions in expanded, unit, and word forms by applying place value reasoning.
Date: 6/28/13

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engage^ny   **1.B.11**

b.   0.249

c.   57.281

4.   Write a decimal for each of the following. Use a place value chart to help if necessary.

a. $7 \times 10 + 4 \times 1 + 6 \times \left(\frac{1}{10}\right) + 9 \times \left(\frac{1}{100}\right) + 2 \times \left(\frac{1}{1000}\right)$

b. $5 \times 100 + 3 \times 10 + 8 \times 0.1 + 9 \times 0.001$

c. $4 \times 1000 + 2 \times 100 + 7 \times 1 + 3 \times \left(\frac{1}{100}\right) + 4 \times \left(\frac{1}{1000}\right)$

5.   Mr. Pham wrote 2.619 on the board. Christy says its two and six hundred nineteen thousandths. Amy says its 2 ones 6 tenths 1 hundredth 9 thousandths. Who is right? Use words and numbers to explain your answer.

COMMON CORE

Lesson 5:   Name decimal fractions in expanded, unit, and word forms by applying place value reasoning.
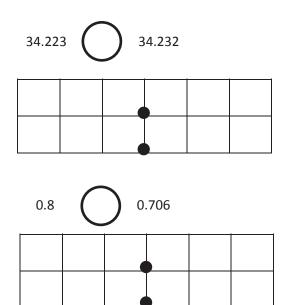**Date:**   6/28/13

engage^ny   1.B.12

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Name _____   Date _____

1. Show the numbers on the place value chart using digits. Use >, <, or = to compare. Explain your thinking to the right.

34.223 ◯ 34.232

			.			

0.8 ◯ 0.706

		.			

2. Use >, <, or = to compare the following. Use a place value chart to help if necessary.

a. 16.3	◯	16.4
b. 0.83	◯	$\dfrac{83}{100}$
c. $\dfrac{205}{1000}$	◯	0.205
d. 95.580	◯	95.58
e. 9.1	◯	9.099
f. 8.3	◯	83 tenths
g. 5.8	◯	Fifty-eight hundredths

COMMON CORE

Lesson 6: Compare decimal fractions to the thousandths using like units and express comparisons with >, <, and =.
Date: 6/28/13

engage^ny 1.B.22

h. Thirty-six and nine thousandths	◯	4 tens
i. 202 hundredths	◯	2 hundreds and 2 thousandths
j. One hundred fifty-eight thousandths	◯	158,000
k. 4.15	◯	415 tenths

3. Arrange the numbers in increasing order.

   a.   3.049   3.059   3.05   3.04

   _____

   b.   182.205   182.05   182.105   182.025

   _____

4. Arrange the numbers in decreasing order.

   a.   7.608   7.68   7.6   7.068

   _____

   b.   439.216   439.126   439.612   439.261

   _____

COMMON CORE

Lesson 6:   Compare decimal fractions to the thousandths using like units and express comparisons with >, <, and =.

Date: 6/28/13

engage^ny   1.B.23

5. Lance measured 0.485 liter of water. Angel measured 0.5 liter of water. Lance said, "My beaker has more water than yours because my number has 3 decimal places and yours only has 1." Is Lance correct? Use words and numbers to explain your answer.

6. Dr. Hong prescribed 0.019 liter more medicine than Dr. Tannenbaum. Dr. Evans prescribed 0.02 less than Dr. Hong. Who prescribed the most medicine? Who prescribed the least? Explain how you know using a place value chart.

COMMON CORE

Lesson 6:   Compare decimal fractions to the thousandths using like units
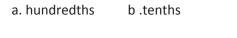   and express comparisons with >, <, and =.
Date: 6/28/13

engage^ny   1.B.24

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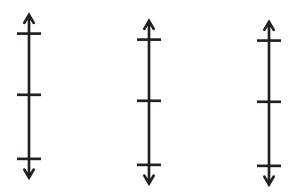
Name _____   Date _____

Fill in the table then round to the given place. Label the number lines to show your work. Circle the rounded number.

1. 3.1

    a. hundredths   b .tenths   c. tens

tens	1s	Tenths	Hundredths	Thousandths

2. 115.376

    a. hundredths   b. ones   c. tens

Tens	Ones	Tenths	Hundredths	Thousandths

Lesson 7: Round a given decimal to any place using place value understanding and the vertical number line.

Date: 6/28/13

engage^{ny}   **1.C.10**

3. 0.994

Tens	Ones	Tenths	Hundredths	thousandths

a. hundredths   b. tenths   c. ones   d. tens

4. For open international competition, the throwing circle in the men's shot put must have a diameter of 2.135 meters. Round this number to the nearest hundredth to estimate the diameter. Use a number line to show your work.

5. Jen's pedometer said she walked 2.549 miles. She rounded her distance to 3 miles. Her brother rounded her distance to 2.5 miles. When they argued about it, their mom said they are both right. Explain how that could be true. Use number lines and words to explain your reasoning.

Lesson 7:   Round a given decimal to any place using place value understanding and the vertical number line.

Date: 6/28/13

engage^{ny}   1.C.11

Name _____   Date _____

1. Write the decomposition that helps you, and then round to the given place value. Draw number lines to explain your thinking. Circle the rounded value on each number line.

    a. Round 32.697 to nearest tenth, hundredth, and whole number.

    b. Round 141.999 to nearest tenth, hundredth, ten, and hundred.

2. A root beer factory produces 132,554 cases in 100 days. About how many cases does the factory produce in 1 day? Round your answer to the nearest tenth of a case. Show your thinking on the number line.
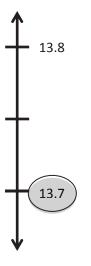
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Lesson 8: Round a given decimal to any place using place value understanding and the vertical number line.
Date: 6/28/13

engage^{ny} 1.C.21

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3. A decimal number has two digits to the right of its decimal point. If we round it to the nearest tenth, the result is 13.7.

    a. What is the maximum possible value of this number? Use words and the number line to explain your reasoning. Include the midpoint on your number line.

    13.8

    13.7

    b. What is the minimum possible value of this decimal? Use words and the number line to explain your reasoning. Include the midpoint on your number line.

COMMON CORE

Lesson 8: Round a given decimal to any place using place value understanding and the vertical number line.

Date: 6/28/13

engage^ny 1.C.22

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Name _____   Date _____

1. Solve then write your sum in standard form. You may draw a place value mat on a separate sheet to help you, if necessary.

    a.   1 tenth + 2 tenths = _____ tenths = _____

    b.   14 tenths + 9 tenths = _____ tenths = _____ one(s)_____ tenth(s) = _____

    c.   1 hundredth + 2 hundredths = _____ hundredths = _____

    d.   27 hundredths + 5 hundredths = _____ hundredths = _____ tenths _____ hundredths = _____

    e.   1 thousandth + 2 thousandths = _____ thousandths = _____

    f.   35 thousandths + 8 thousandths = _____ thousandths = _____ hundredths _____ thousandths = _____

    g.   6 tenths + 3 thousandths = _____ thousandths = _____

    h.   7 ones 2 tenths + 4 tenths = _____ tenths = _____

    i.   2 thousandths + 9 ones 5 thousandths = _____ thousandths = _____

2.   Solve using the standard algorithm.

a. 0.3+ 0.82 = _____	b. 1.03 + 0.08 = _____
c. 7.3 + 2.8 = _____	d. 57.03 + 2.08 = _____

Lesson 9:   Add decimals using place value strategies and relate those strategies to a written method.
Date: 6/28/13

engage^ny   1.D.11

e. 62.573 + 4.328 = _____	f. 85.703 + 12.197 = _____

3. Van Cortlandt Park's walking trail is 1.02 km longer than Marine Park. Central Park's walking trail is 0.242 km longer than Van Cortlandt's.

   a.   Fill in the missing information in the chart below.

New York City Walking Trails	
Central Park	_____ km
Marine Park	1.28 km
Van Cortlandt Park	_____ km

   b.   If a tourist walked all 3 trails in a day, how many km would they have walked?

4. Meyer has 0.64 GB of space remaining on his iPod. He wants to download a pedometer app (0.24 GB) a photo app (0.403 GB) and a math app (0.3 GB). Which combinations of apps can he download? Explain your thinking.

COMMON CORE

Lesson 9: Add decimals using place value strategies and relate those strategies to a written method.
Date: 6/28/13

engage^ny   1.D.12

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Name _____ Date _____

1. Subtract, writing the difference in standard form. You may use a place value chart to solve.

   a. 5 tenths – 2 tenths = _____ tenths = _____

   b. 5 ones 9 thousandths – 2 ones = _____ ones _____ thousandths = _____

   c. 7 hundreds 8 hundredths – 4 hundredths = _____ hundreds _____ hundredths = _____

   d. 37 thousandths – 16 thousandths = _____ thousandths = _____

2. Solve using the standard algorithm.

a. 1.4 – 0.7 = _____	b. 91.49 – 0.7 = _____	c. 191.49 – 10.72 = _____
d. 7.148 – 0.07 = _____	e. 60.91 – 2.856 = _____	f. 361.31 – 2.841 = _____

Lesson 10: Subtract decimals using place value strategies and relate those strategies to a written method.
Date: 6/28/13

engage^ny   1.D.21

3. Solve.

a. 10 tens – 1 ten 1 tenth	b. 3 – 22 tenths	c. 37 tenths – 1 one 2 tenths
d. 8 ones 9 hundredths – 3.4	e. 5.622 – 3 hundredths	f. 2 ones 4 tenths – 0.59

4. Mrs. Fan wrote 5 tenths minus 3 hundredths on the board. Michael said the answer is 2 tenths because 5 minus 3 is 2. Is he correct? Explain.

5. A pen costs $2.09. It costs $0.45 less than a marker. Ken paid for one pen and one marker with a five dollar bill. Use a tape diagram with calculations to determine his change.

COMMON CORE

Lesson 10: Subtract decimals using place value strategies and relate those strategies to a written method.

Date: 6/28/13

engage^ny   **1.D.22**

Name _____   Date _____

1. Solve by drawing disks on a place value chart. Write an equation and express the product in standard form.

    a. 3 copies of 2 tenths

    b. 5 groups of 2 hundredths

    c. 3 times 6 tenths

    d. 6 times 4 hundredths

    e. 5 times as much as 7 tenths

    f. 4 thousandths times 3

2. Draw a model similar to the one pictured below for Parts (b), (c), and (d). Find the sum of the partial products to evaluate each expression.

    a. 7×3.12

	3 ones	+	**1 tenth**	+	**2 hundredths**
7	7 x 3 ones		7 x 1 tenth		7 x 2 hundredths

    _____ + _____ + 0.14 = _____

    b. 6 x 4.25

![Common Core] **Lesson 11:** Multiply a decimal fraction by single-digit whole numbers, relate to a written method through application of the area model and place value understanding, and explain the reasoning used.

Date: 6/28/13

engage^ny   **1.E.10**

    c.   3 copies of 4.65

    d.   4 times as much as 20.075

3.   Miles incorrectly gave the product of 7 x 2.6 as 14.42. Use a place value chart or an area model to help Miles understand his mistake.

4.   Mrs. Zamir wants to buy 8 protractors and some erasers for her classroom. She has $30. If protractors cost $2.65 each, how much will Mrs. Zamir have left to buy erasers?

Lesson 11:   Multiply a decimal fraction by single-digit whole numbers, relate to a written method through application of the area model and place value understanding, and explain the reasoning used.

Date: 6/28/13

engage^ny   1.E.11

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Name _____   Date _____

1. Choose the reasonable product for each expression. Explain your reasoning in the spaces below using words, pictures and numbers.

    a.   2.5 x 4   0.1   1   10   100

    b.   3.14 x 7   2198   219.8   21.98   2.198

    c.   8 x 6.022   4.8176   48.176   481.76   4817.6

    d.   9 x 5.48   493.2   49.32   4.932   .4932

COMMON CORE   Lesson 12:   Multiply a decimal fraction by single-digit whole numbers, including using estimation to confirm the placement of the decimal point.   engage^ny   **1.E.23**

Date: 6/28/13

2. Pedro is building a spice rack with 4 shelves that are each 0.55 meter long. At the hardware store, Pedro finds that he can only buy the shelving in whole meter lengths. Exactly how many meters of shelving does Pedro need? Since he can only buy whole number lengths, how many meters of shelving should he buy? Justify your thinking.

3. Marcel rides his bicycle to school and back on Tuesdays and Thursdays. He lives 3.62 kilometers away from school. Marcel's gym teacher wants to know about how many kilometers he bikes in a week. Marcel's math teacher wants to know exactly how many kilometers he bikes in a week. What should Marcel tell each teacher? Show your work.

4. The poetry club had its first bake sale, and they made $79.35. The club members are planning to have 4 more bake sales. Leslie said, "If we make the same amount at each bake sale, we'll earn $3,967.50." Peggy said, "No way, Leslie! We'll earn $396.75 after five bake sales." Use estimation to help Peggy explain why Leslie's reasoning is inaccurate. Show your reasoning using words, numbers and pictures.

COMMON CORE | **Lesson 12:** | Multiply a decimal fraction by single-digit whole numbers, including using estimation to confirm the placement of the decimal point. | **engage**^ny | **1.E.24**
| **Date:** | 6/28/13

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Name _____   Date _____

1. Complete the sentences with the correct number of units and complete the equation.

    a. 4 groups of _____ tenths is 1.6.   1.6 ÷ 4 = _____

    b. 8 groups of _____ hundredths is 0.32.   0.32 ÷ 8 = _____

    c. 7 groups of _____ thousandths is 0.084.   .084 ÷ 7 = _____

    d. 5 groups of _____ tenths is 2.0   2.0 ÷ 5 = _____

2. Complete the number sentence. Express the quotient in units and then in standard form.

    a. 4.2 ÷ 7 = _____ tenths ÷ 7 = _____ tenths = _____

    b. 2.64 ÷ 2 = _____ ones ÷ 2 + _____ hundredths ÷ 2

        = _____ ones + _____ hundredths

        = _____

    c. 12.64 ÷ 2 = _____ ones ÷ 2 + _____ hundredths ÷ 2

        = _____ ones + _____ hundredths

        = _____

engage^ny   **1.F.10**

d. $4.26 \div 6 = $ _____ tenths $\div 6 + $ _____ hundredths $\div 6$

   = _____

   = _____

e. $4.236 \div 6 = $ _____

   = _____

   = _____

3. Find the quotients. Then use words, numbers, or pictures to describe any relationships you notice between each pair of problems and quotients.

   a. $32 \div 8 = $ _____ $3.2 \div 8 = $ _____

   b. $81 \div 9 = $ _____ $0.081 \div 9 = $ _____

4. Are the quotients below reasonable? Explain your answer.

   a. $5.6 \div 7 = 8$

   b. $56 \div 7 = 0.8$

   c. $.56 \div 7 = 0.08$

COMMON CORE

Lesson 13: Divide decimals by single-digit whole numbers involving easily identifiable multiples using place value understanding and relate to a written method.

Date: 6/28/13

engage^ny

1.F.11

5.   12.48 milliliters of medicine were separated into doses of 4 ml each. How many doses were made?

6.   The price of most milk in 2013 is around $3.28 a gallon. This is eight times as much as you would have probably paid for a gallon of milk in the 1950's. What was the cost for a gallon of milk during the 1950's? Use a tape diagram and show your calculations.

Name _____   Date _____

1. Draw number disks on the place value chart to solve. Show your steps using the standard algorithm.

   a. $4.236 \div 3 =$ _____

Ones	Tenths	Hundredths	Thousandths
b. c. d. e. f. g. h. i.			

   $$3\overline{)4.236}$$

   b. $1.324 \div 2 =$ _____

Ones	Tenths	Hundredths	Thousandths

   $$2\overline{)1.324}$$

| COMMON CORE | **Lesson 14:** | Divide decimals with a remainder using place value understanding and relate to a written method. | engage^ny | **1.F.23** |
| | **Date:** | 6/28/13 | | |

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2. Solve using the standard algorithm.

a. $0.78 \div 3 =$ _____	b. $7.28 \div 4 =$ _____	c. $17.45 \div 5 =$ _____

3. Grayson wrote the following in her math journal: $1.47 \div 7 = 2.1$
   Use words, numbers and pictures to explain why Grayson's thinking is incorrect.

4. Mrs. Nguyen used 1.48 meters of netting to make 4 identical mini hockey goals. How much netting did she use per goal?

5. Esperanza usually buys avocados for $0.94 apiece. During a sale, she gets 5 avocados for $4.10. How much money did she save per avocado? Use a tape diagram and show your calculations.

Lesson 14: Divide decimals with a remainder using place value understanding and relate to a written method.
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1. Draw number disks on the place value chart to solve, and show your steps using long division.

    a.   0.5 ÷ 2 = _____

Ones	•	Tenths	Hundredths	Thousandths

$$2\overline{)0.5}$$

    b.   5.7 ÷ 4 = _____

Ones	•	Tenths	Hundredths	Thousandths

$$4\overline{)5.7}$$

Lesson 15:   Divide decimals using place value understanding, including remainders in the smallest unit.

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2. Solve using the standard algorithm.

a. $0.9 \div 2 =$	b. $9.1 \div 5=$	c. $9 \div 6 =$
d. $0.98 \div 4 =$	e. $9.3 \div 6 =$	f. $91 \div 4 =$

3. Six bakers shared 7.5 kg of flour equally. How much flour did they each receive?

4. Mrs. Henderson makes punch by mixing 10.9 liters of apple juice, 600 milliliters of orange juice, and 8 liters of ginger ale. She pours the mixture equally into 6 large punch bowls. How much punch is in each bowl? Express your answer in liters.

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Lesson 15:   Divide decimals using place value understanding, including
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Solve.

1. Mr. Frye distributed $126 equally among his 4 children for their weekly allowance.
   a. How much money did each child receive?

   b. John, the oldest child, paid his siblings to do his chores. If John pays his allowance equally to his brother and two sisters, how much money will each of his siblings have received in all?

2. Ava is 23 cm taller than Olivia, and Olivia is half the height of Lucas. If Lucas is 1.78 m tall, how tall are Ava and Olivia? Express their heights in centimeters.

3. Mr. Hower can buy a computer with a down payment of $510 and 8 monthly payments of $35.75. If he pays cash for the computer, the cost is $699.99. How much money will he save if he pays cash for the computer instead of paying for it in monthly payments?

4. Brandon mixed 6.83 lbs. of cashews with 3.57 lbs. of pistachios. After filling up 6 bags that were the same size with the mixture, he had 0.35 lbs. of nuts left. What was the weight of each bag? Use a tape diagram and show your calculations.

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Lesson 16:   Solve word problems using decimal operations.
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5. The bakery bought 4 bags of flour containing 3.5 kg each. 475 g of flour are needed to make a batch of muffins and 0.65 kg is needed to make a loaf of bread.

    a. If 4 batches of muffins and 5 loaves of bread are baked, how much flour will be left? Give your answer in kilograms.

    b. The remaining flour is stored in bins that hold 3 kg each. How many bins will be needed to store the flour? Explain your answer.