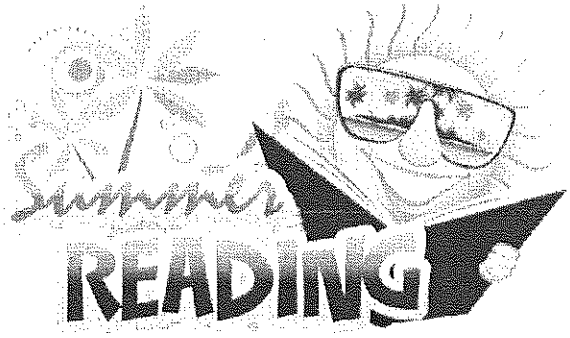
Sixth Grade 2015-2016



All of the following books are recommended reading for the summer.

Choose two books from the following selection to read over the summer.
Assignments in the first weeks September will relate to your reading.
Students should be reading at a **level V to end fifth grade**
and a level Y to end sixth grade.

1. The Giver	Y	Lowry, Lois
2. Olive's Ocean	V	Henkes, Kevin
3. Roll of Thunder, Hear My Cry	W	Taylor, Mildred D.
4. The City of Ember	W	DuPrau, Jeanne
5. The Moon Bridge	W	Savin, Marcia
6. The Phantom Tollbooth	W	Juster and Nanus
7. Tiger Eyes	W	Blume, Judy
8. The Face on the Milk Carton	Y	Cooney, Caroline
9. The House of Dies Drear	V	Hamilton, Virginia
10. Reallionaire		Gray, Farrah

Sixth Grade 2015-2016

Summer Math Packet

Student Name: _____

Homeroom Teacher: _____

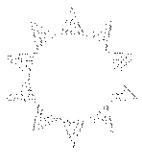
Directions: **Complete the math packet without using a calculator. Show all work. Use separate sheets of paper if needed.**

Online Practice

IXL.com is a very helpful website to practice math concepts aligned to each grade level. There are free trials available that would be perfect for summer!

6th grade math: https://www.ixl.com/math/grade-6

Be sure to practice multiplication facts daily!!!



Week 2 • Day 5
Mixed Practice

Practice Makes Perfect

Solve the problems below. Be sure to watch the operation signs. Use a separate sheet of paper to do your work NO CALCULATORS!

1. **776 + 459 =** _____
2. **640 x 30 =** _____
3. **8,200 – 5,389 =** _____
4. **6,043 x 8 =** _____
5. **63,105 – 4,345 =** _____
6. **21,845 + 13,000 =** _____
7. **33950 ÷ 7 =** _____
8. **508 x 739 =** _____
9. **89 + 43 =** _____
10. **4,666 – 1,888 =** _____
11. **551 x 530 =** _____
12. **4,001 – 1,999 =** _____
13. **8000 ÷ 20 =** _____
14. **347 x 403 =** _____
15. **21 + 24 + 52 =** _____
16. **8283 ÷ 251 =** _____
17. **9,000 – 4,578 =** _____
18. **7,288 – 1399 =** _____
19. **5535 ÷ 123 =** _____
20. **728 x 500 =** _____

Fractions, Decimals, and Percents

Write each fraction as a percent. Round to the nearest hundredth.
Follow these rules: 1) Change the fraction to a decimal (numerator ÷ denominator).
2) Change the decimal to a percent (multiply by 100). A percent compares a quantity to 100. If you can make an equivalent fraction with a denominator of 100, then the numerator equals the percent.

1. $\frac{3}{5}$ _____
3. $\frac{4}{25}$ _____
5. $\frac{17}{25}$ _____
7. $\frac{67}{100}$ _____

2. $\frac{1}{2}$ _____
4. $\frac{22}{100}$ _____
6. $\frac{12}{50}$ _____
8. $\frac{11}{25}$ _____

Write each decimal as a percentage. **Remember:** Decimals that name hundreds can be written easily as percentages because *percent* means per hundred.

9. **0.18** _____
11. **0.09** _____
13. **0.35** _____
15. **0.03** _____

10. **0.75** _____
12. **0.54** _____
14. **0.98** _____
16. **0.61** _____

Measuring Up

Convert each measurement.

12 inches (in.) = 1 foot (ft) 3 ft = 1 yard (yd)

1. **12 in. =** _____ **ft** 4. **24 ft =** _____ **yd** 7. **42 ft =** _____ **yd**
2. **1 yd =** _____ **in.** 5. **81 ft =** _____ **yd** 8. **11 ft =** _____ **in.**
3. **8 ft =** _____ **in.** 6. **12 yd =** _____ **ft** 9. **120 in. =** _____ **ft**

1 kilometer (km) = 1,000 meters (m)
1 m = 10 decimeters (dm)

10 dm = 100 centimeters (cm)
100 cm = 1,000 millimeters (mm)

10. **8 cm =** _____ **m** 13. **848 m =** _____ **km** 16. **45 m =** _____ **dm**
11. **15 km =** _____ **m** 14. **45 dm =** _____ **m** 17. **50 km =** _____ **dm**
12. **900 dm =** _____ **cm** 15. **100 dm =** _____ **mm** 18. **9 m =** _____ **cm**

Metric units of weight are **milligrams** (mg), **grams** (g), and **kilograms** (kg).

63 kg = _____ g
1 kg = 1000 g
63 kg = (63 x 1000) g
63 kg = 63,000 g

32 mg = _____ g
1 mg = 0.001 g
32 mg = (32 x 0.001) g
32 mg = 0.032 g

1 g = 1000 mg
1 kg = 1000 g
1 mg = 0.001 g
1 g = 0.001 kg

19. **2000 mg =** _____ **g** 21. **250 mg =** _____ **kg** 23. **1500 mg =** _____ **g**
20. **4 kg =** _____ **g** 22. **90 g =** _____ **mg** 24. **18 g =** _____ **mg**

Working With Fractions, Decimals & Percents

Reduce these fractions to lowest terms. Circle the letter with the correct answer.

1. $\frac{9}{21}$ =

A. $\frac{4}{10}$ B. $\frac{3}{8}$ C. $\frac{3}{7}$ D. $\frac{3}{12}$

2. $\frac{10}{18}$ =

A. $\frac{5}{9}$ B. $\frac{2}{8}$ C. $\frac{5}{8}$ D. $\frac{2}{3}$

3. $\frac{11}{33}$ =

A. $\frac{1}{5}$ B. $\frac{2}{11}$ C. $\frac{2}{3}$ D. $\frac{1}{3}$

4. $\frac{13}{39}$ =

A. $\frac{1}{3}$ B. $\frac{1}{13}$ C. $\frac{4}{13}$ D. $\frac{7}{20}$

Compute the sums and differences of these decimals. Circle the letter with the correct answer.

5. **0.025 + 2.5 =**

A. 2.552 B. 2.525 C. 2.535 D. 5.025

6. **5.1 + 0.384 =**

A. 5.484 B. 5.44 C. 5.448 D. 5.584

7. **1 – 0.236 =**

A. 0.1236 B. 0.00764 C. 1.746 D. 0.764

8. **7.444 + 3.666 =**

A. 11.11 B. 111.11 C. 1.744 D. 10.11

Convert these decimals and fractions to percents. Circle the letter with the correct answer.

9. **0.25 =**

A. 0.025% B. 2.5% C. 25% D. 0.25%

10. **0.33 =**

A. 33% B. .033% C. 3.30% D. 330%

11. $\frac{1}{4}$ =

A. 2.5% B. 25% C. 0.025% D. 0.25%

12. $\frac{3}{4}$ =

A. 75% B. 750% C. 7.5% D. 0.75%

Multiplying Decimals

Review the rules for multiplying decimals. Then solve the problems. Show your work! No calculators

Rules

1. *Multiply as you would whole numbers.*
2. *The number of decimal places in the product is the sum of the decimal places in the factors.*

Remember: *When you see a problem presented horizontally, line up the numbers on the right. Do* **not** *line up the decimal points.*

Example:

Factor	.4	*1 decimal place*
Factor	x .9	*1 decimal place*
Product	.36	*2 decimal places*

.35 x 0.8 =

Correct	*Incorrect*
.35	.35
x 0.8	x 0.8

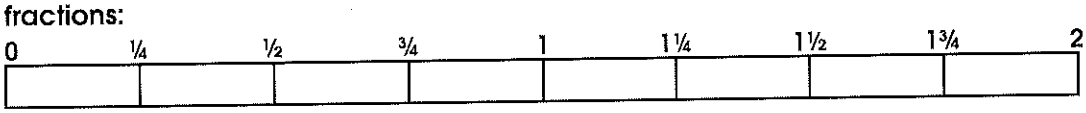
1. .6 x .4
2. 9.4 x 7.6
3. 3.1 x 6.3
4. 2.9 x 1.5
5. 6.8 x 0.35
6. 9.27 x 6.6
7. 2.2 x 9.49
8. 5.99 x 5.6
9. 4.8 x 7.7
10. 5.6 x 7.6
11. 2.9 x 6.15
12. 8.6 x 5.8
13. 2.23 x 0.337
14. 1.6 x 0.797
15. 0.72 x 5.79
16. 7.71 x 0.226

Using a Number Line

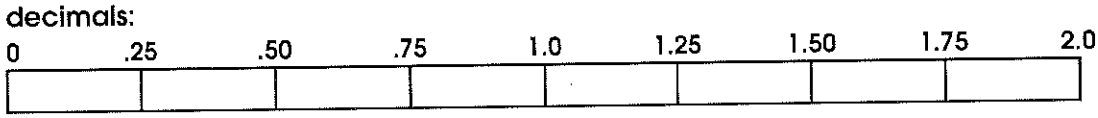
Use the first set of number lines to answer questions 1 through 5 below. Then, use what you know about decimals, fractions, percents, and how to convert them to fill in the missing values in the number lines at the bottom of this page.

whole numbers:

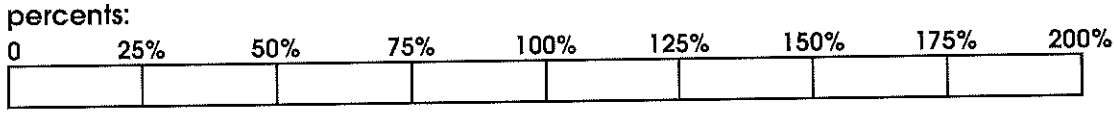
fractions:



decimals:



percents:



1. **What are the fraction and decimal equivalents for 25%?** _____ **&** _____

2. **What is the decimal equivalent of 125%?** _____

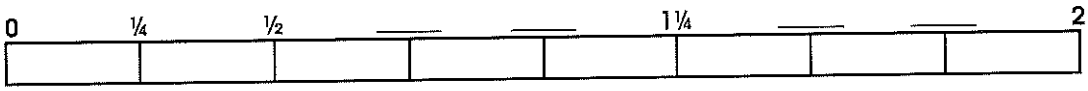
3. **What is the same as ½ when represented as a decimal and percent?** _____ **&** _____

4. **What decimal amount is twice as much as 50%?** _____

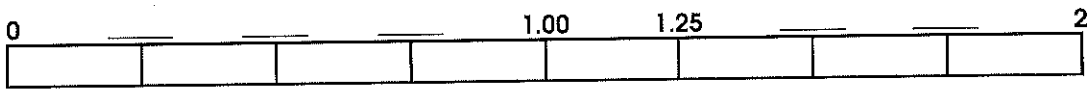
5. **List the decimal and percent equivalents for the value halfway between ¼ and ¾:**

   a) decimal: _____ **b) percentage:** _____

Fill in the missing fractions:

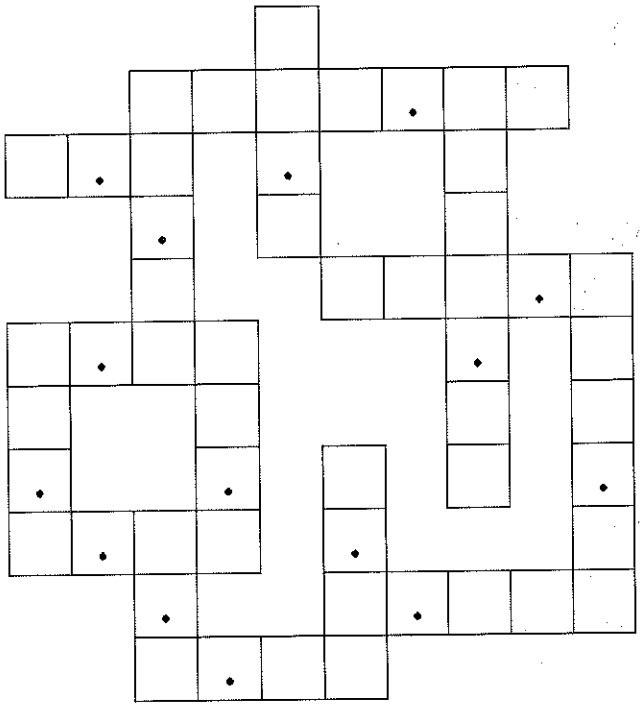


Fill in the missing decimals



Every Number Has Its Place

Write each decimal in standard form on the lines below. Fit the number into the puzzle. The decimal points occupy one space and are already written in the puzzle.



1. three and forty-four hundredths

   3.44

2. four and six tenths

3. forty-one and seven tenths

4. four thousand sixteen and thirty-two hundredths

5. nine hundred forty-seven and thirty-six hundredths

6. six and five tenths

7. fifty-six and four tenths

8. one and thirty-five hundredths

9. one and six thousandths

10. forty-five and sixty-three hundredths

11. fifteen and three tenths

12. three hundred seventeen and nine tenths

13. three thousand seven and fifty-five hundredths

14. six and nineteen hundredths

15. six and ninety-nine hundredths

Multiplication Mastery

Find the products for the following multiplication problems. Show all work. No calculators!

1. 976 x 719

2. 328 x 446

3. 899 x 719

4. 950 x 568

5. 493 x 587

6. 755 x 582

7. 763 x 167

8. 665 x 469

9. 800 x 983

10. 974 x 314

11. 681 x 737

12. 175 x 465

13. 903 x 941

14. 670 x 262

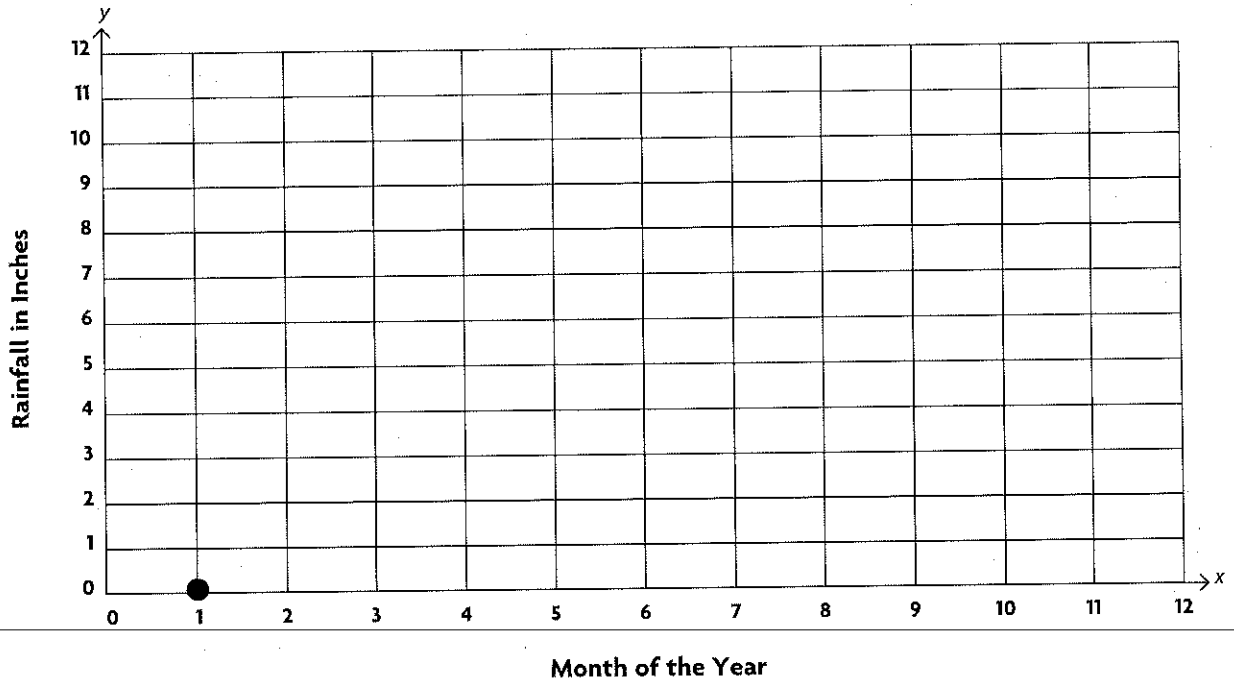
15. 536 x 329

16. 688 x 640

Plotting Coordinates on a Graph

Plot each of the given ordered pairs on the coordinate plane below. Note: Ordered pairs or "*coordinates*" are written with respect to the ***x*** axis & ***y*** axis (*x, y*). See example given.

Amy's Rainfall Record—2011



1. **(1, 0)** ✔
2. **(3, 4)**
3. **(6, 7)**
4. **(8,2)**
5. **(2,1)**
6. **(4,12)**
7. **(5,10)**
8. **(9,3)**
9. **(12,1)**
10. **(7, 2)**
11. **(10, 5)**
12. **(11, 6)**

Money Problems

Use the necessary operations, such as addition, subtraction, multiplication, and division, to solve the following money word problems. Do your work on a separate sheet of paper.

No calculators!

1. Kia and Luc had $20.00 each to spend at the mall. They planned to shop first, then see a movie. Kia bought a T-shirt for $12.38; her movie ticket was $6.75. Luc rented two video games for $1.50 each, and his movie ticket was $6.75. How much did each person spend in all at the mall?

   Kia_____ Luc_____

2. Mark and Jon attend the same soccer camp. The camp costs $195.00 per person, per week. The boys also have to pay their own travel costs to and from camp. If the boys ride up and back together, they only spend $80.00 on gas. Find the total each boy will pay to cover camp and travel costs for a week.

3. Madison and Julia run a pet-sitting service for dogs. They charge $4.00 for dog walking, $12.00 for bathing, and $25.00 for overnight boarding. If a customer orders a bath with overnight boarding, the girls charge $30.00 for that combination. A new dog, Cash, is going to board overnight, have a bath, and go on two walks. What is the total cost for these services?

4. Frannie went to the local surf shop with $40.00. She bought some board wax and a skim board. The board cost $35.00, and wax cost $1.75. How much money does Frannie have left?

5. Mrs. Carney owns a restaurant. She has several lunch specials on the menu that are only $4.99 each. They include an entrée, a soup, and a beverage. This week, 72 customers ordered one of the specials. How much money did she make this week from the lunch specials?

6. Mrs. Kaye owns a small amusement park with a water slide, a miniature golf course, and a two-mile zip line. A day pass for the water slide costs $45.00. One round of golf costs $15.00, and a zip line ride costs $36.00. What will Mrs. Kaye earn today if she sells 5 zip-line tickets, 22 water-slide day passes, and 10 rounds of golf?

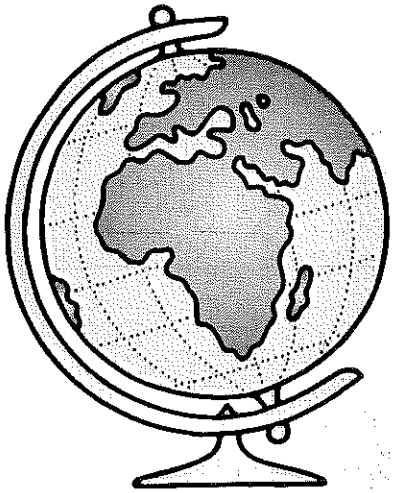
Multiply It!

Solve each multiplication word problem. Write the answer in the space provided. show your work! No calculators!

1. Each day after school, Carlos purchases yogurt and a banana for a total of $3.29. How much does Carlos spend on his snacks each week?	4. Mr. Richards sold 140 bushels of apples. If he receives $15.50 per bushel, how much money did he earn?
2. In July, the aquarium sold 5 times as many tickets as it did in June. The aquarium sold 987 tickets in June. How many tickets did the aquarium sell in July?	5. Sally collected 7 times as many aluminum cans to recycle as Alan. Alan collected 2,999 aluminum cans. How many cans did Sally collect for the recycling drive?
3. Peter saw in a newspaper ad that shirts were on sale at the mall for $23.45 each. If he purchased 6 shirts, how much would Peter spend?	6. Tony's printer is out of ink. Ink sets for his printer cost $18.49 for the color ink pack and $9.49 for the black ink pack. If Tony purchases 5 color packs and 9 black packs, how much will he spend in all?

Geographic Wonders

What is the world's largest country? The largest desert? The smallest continent? Do this fraction match-up to discover the answers. Each geographic "wonder" listed below is followed by a fraction. Reduce the fraction to its lowest terms. Then correctly match it to one of the fractions in the right column and you'll find the name of the geographic wonder or its location. Write that name or place on the line.



Geographic Wonders			Place	
1. **World's largest desert**	$\frac{39}{312}$	$\frac{1}{8}$ = Sahara	$\frac{1}{7}$	Australia
2. **Largest country (land)**	$\frac{2}{18}$	_____	$\frac{1}{5}$	China
3. **World's largest city**	$\frac{19}{38}$	_____	$\frac{1}{4}$	Canada
4. **Highest waterfall**	$\frac{100}{110}$	_____	$\frac{1}{8}$	Sahara ✓
5. **Largest country (population)**	$\frac{6}{30}$	_____	$\frac{2}{3}$	Mammoth – Flint Ridge
6. **Smallest continent**	$\frac{3}{21}$	_____	$\frac{10}{11}$	Salto Angel in Venezuela
7. **Largest cave system**	$\frac{12}{18}$	_____	$\frac{1}{6}$	Nile
8. **World's highest mountain**	$\frac{3}{9}$	_____	$\frac{1}{3}$	Everest
9. **Second largest country**	$\frac{12}{48}$	_____	$\frac{1}{9}$	Russia
10. **World's longest river**	$\frac{5}{30}$	_____	$\frac{1}{2}$	Tokyo, Japan

What Are the Chances?

Read each question below. Select the best answer using your knowledge of probability, statistics, odds, and ratios.

1. **Mark and Gil played a chip game using 15 chips. Four were red, three white, five green, and the rest were blue. What color will Gil most likely pick from the bag while not looking inside?**
   A. green
   B. blue
   C. red
   D. white

2. **If Mandy flips a quarter 100 times, how many times is she likely to have it land on heads?**
   A. 24
   B. 99
   C. 51
   D. 78

3. **Tony has a spinner that is equally divided into 6 sections. What is the probability he will land on 1 on his first spin?**
   A. $\frac{1}{3}$
   B. $\frac{1}{2}$
   C. $\frac{2}{3}$
   D. $\frac{1}{6}$

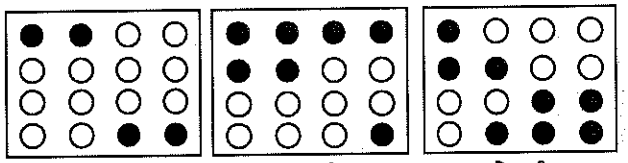
4. **Max rolled two identical dice together. What is the probability he will roll a 4 on either one?**
   A. $P = (\frac{1}{4})$
   B. $P = (\frac{1}{6})$
   C. $P = (\frac{1}{12})$
   D. $P = (\frac{1}{3})$

5. **Sam and Lee kept team stats for all 8 baseball games. The runs scored were as follows:**

Games:	#1	#2	#3	#4	#5	#6	#7	#8
Scores:	8	4	10	8	5	6	8	9

   What was the team's season average?
   A. 7.25
   B. 8.75
   C. 7.5
   D. 6.25

6. **Carson's math teacher had everyone select marbles from three boxes, each of which held 16 black and white marbles in different combinations. The drawings below illustrate the assignment and will help you as you complete the table to show the likelihood of Carson's outcomes based on rules of probability.**



Note: Each selection is tried only once by the students and all marbles are replaced for subsequent selections.

Selection #	Box #	Description	Probability
1	2	only white	
2	3	white or black	
3	1	black only	
4	1 & 3	white only	

Division Worksheet

show all work! No calculators!!

$51\overline{)9811}$ $27\overline{)3289}$ $72\overline{)6186}$

$19\overline{)7002}$ $96\overline{)7454}$ $45\overline{)9467}$

$39\overline{)5326}$ $64\overline{)1145}$ $83\overline{)3872}$