

Name: _____

SUMMER MATH PACKET

Incoming 7th grade



Hope you all enjoy the relaxing summer vacation from school. We can't let our minds relax too much! The following pages should be completed during the summer months and returned to math class on **TUESDAY, SEPTEMBER 7th**.

This is your first grade of the marking period!

Please work on this packet throughout the summer. Do NOT complete the packet tomorrow *or* wait until September 1st!

The pages should be stapled together with ALL of your work. Show your work!!

I have included a list of FREE websites for fun and to help you with the summer review work. If you have a question, I can be reached at esantini@st-ann-school.org I'll try to get back to you as soon as I can.

Don't forget to practice your math facts and exercise your brain every day!

Have a safe and happy summer!

 Miss Santini

FREE Websites for Fun & Learning

www.khanacademy.org -3rd-12th materials & resources for all subjects & levels

www.mathplayground.com -K-8th worksheets, games, facts

www.adaptedmind.com -1st-6th math worksheets & problems, instructional videos

www.coolmath4kids.com -lessons, practice, games, brain teasers

www.aplusmath.com -games, flashcards, puzzles, homework helper (includes algebra)

www.amathsdictionaryforkids.com -interactive math definitions

www.arcademicskillbuilders.com -K-6th educational games for math

www.xpmath.com -math games arcade by topic & grade level

www.mathisfun.com -1st-7th games, puzzles, practice plus algebra, geometry, & pre-calculus

www.timemonsters.com -lessons & quizzes about time, very funny (1st -H.S.)

www.carnegiestemgirls.org -site to spark & fuel girls' interest in science & math

www.mathabc.com - K-6th online math practice, online tutoring

www.algebrahelp.com -7th-11th lessons, online worksheets all about algebra

www.hoodamath.com -K-8th fun online games to practice concepts

www.PatrickIMT.com -3rd-12th loads of clear math videos

www.homeworksimplified.com -k-12th math, science, English & history

Math Fact Apps

Operation Math \$

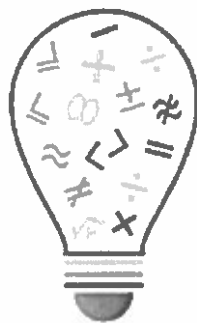
Math Heroes

Sushi Monsters

Math vs Zombies \$\$

Yodel Oh! \$

Adept Mental Math \$



Math Duel \$

Math Ninja HD

Mathtopia \$

Multiplication Game

Fraction Poker

Quiz Math

Lesson 3.2 Finding the Greatest Common Factor

A factor is a divisor of a number. (For example, 3 and 4 are both factors of 12.) A **common factor** is a divisor that is shared by two or more numbers (1, 2, 4, and 8). The **greatest common factor** is the largest common factor shared by the numbers (8).

To find the greatest common factor of 32 and 40, list all of the factors of each.

$$32 \begin{array}{l} \swarrow 1 \times 32 \\ \quad 2 \times 16 \\ \searrow 4 \times 8 \end{array} \quad 1, 2, 4, 8, 16, \text{ and } 32$$

$$40 \begin{array}{l} \swarrow 1 \times 40 \\ \quad 2 \times 20 \\ \quad 4 \times 10 \\ \searrow 5 \times 8 \end{array} \quad 1, 2, 4, 5, 8, 10, 20, \text{ and } 40$$

The greatest common factor is 8.

List the factors of each number below. Then, list the common factors and the greatest common factor.

	Factors	Common Factors	Greatest Common Factor
1.	8 _____ 12 _____	_____	_____
2.	6 _____ 18 _____	_____	_____
3.	24 _____ 15 _____	_____	_____
4.	4 _____ 6 _____	_____	_____
5.	5 _____ 12 _____	_____	_____
6.	16 _____ 12 _____	_____	_____
7.	15 _____ 18 _____	_____	_____
8.	7 _____ 3 _____	_____	_____

Puzzle 5



Devious Decimals

Write each number in standard form and complete the number puzzle on page 11. Be sure to include the decimal points in the puzzle. See #2 Across. It has been done for you.

Across

2. Five hundred forty-six and two thousand, seven hundred fifty ten thousandths: 546.2750
5. Two hundred eighty-seven and two hundred nineteen thousandths: _____
8. Four thousand, three hundred ninety-four and thirty-one hundredths: _____
10. Seven thousand, nine hundred sixty-eight and nine thousand, five hundred fourteen ten thousandths: _____
11. Thirty-one thousand, three and fifty-two hundredths: _____
12. One hundred eighty-three and nineteen thousandths: _____
13. Six thousand, eight hundred fifty-five and seventy-five hundredths: _____
14. Eight hundred ninety-five and one hundred fifty-nine thousandths: _____
16. Nine thousand, seven hundred seventeen and nine thousand, seven hundred fourteen ten thousandths: _____
17. Ten thousand, seven hundred thirty-two and twelve hundredths: _____
18. Four thousand, five hundred four and seven thousand, four hundred fifty ten thousandths: _____

Down

1. Four hundred one and six thousand, seven hundred sixty-one ten thousandths: _____
3. Sixty-six thousand, four hundred thirty-six and eighty-two hundredths: _____
4. Two thousand, four hundred forty-one and nine thousand, five hundred fourteen ten thousandths: _____
5. Two and eight thousand, eight hundred thirty-four ten thousandths: _____
6. Seventy-five thousand, eight hundred two and four hundred twenty-five thousandths: _____
7. Nine and nine thousand, six hundred thirty-three ten thousandths: _____
9. Five hundred seventy and sixty-eight hundredths: _____
14. Eight hundred three thousand, eight hundred seventy-two and three hundredths: _____
15. Ninety-nine thousand, three hundred nineteen and two hundred sixty-four thousandths: _____

Puzzle 5



Devious Decimals (cont.)

See page 10 for the Across and Down clues.

The crossword puzzle grid contains the following numbers:

- Across 2: 5 4 6 .2 7 5 0
- Across 3: 5 4 6 .2 7 5 0
- Across 4: 5 4 6 .2 7 5 0
- Across 5: 5 4 6 .2 7 5 0
- Across 6: 5 4 6 .2 7 5 0
- Across 7: 5 4 6 .2 7 5 0
- Across 8: 5 4 6 .2 7 5 0
- Across 9: 5 4 6 .2 7 5 0
- Across 10: 5 4 6 .2 7 5 0
- Across 11: 5 4 6 .2 7 5 0
- Across 12: 5 4 6 .2 7 5 0
- Across 13: 5 4 6 .2 7 5 0
- Across 14: 5 4 6 .2 7 5 0
- Across 15: 5 4 6 .2 7 5 0
- Across 16: 5 4 6 .2 7 5 0
- Across 17: 5 4 6 .2 7 5 0
- Across 18: 5 4 6 .2 7 5 0

Large numbers scattered around the grid include: 4, 9, .2, 5, .7, and a cartoon boy thinking with question marks above his head.

Puzzle 6



Adding and Subtracting Decimals

Solve each addition and subtraction problem. Write each answer in the number puzzle on page 13. Be sure to include the decimal points in the puzzle. See #2 Across. It has been done for you.

Across

$$\begin{array}{r} 2. \quad 96.498 \\ - 21.671 \\ \hline 74.827 \end{array}$$

$$\begin{array}{r} 3. \quad 43.241 \\ + 51.373 \\ \hline \end{array}$$

$$\begin{array}{r} 5. \quad 51.926 \\ - 42.411 \\ \hline \end{array}$$

$$\begin{array}{r} 7. \quad 57.221 \\ - 39.764 \\ \hline \end{array}$$

$$\begin{array}{r} 9. \quad 35.1 \\ - 25.2 \\ \hline \end{array}$$

$$\begin{array}{r} 11. \quad 13.09 \\ + 96.24 \\ \hline \end{array}$$

$$\begin{array}{r} 12. \quad 18.382 \\ + 89.030 \\ \hline \end{array}$$

$$\begin{array}{r} 13. \quad 96.05 \\ - 78.14 \\ \hline \end{array}$$

$$\begin{array}{r} 14. \quad 20.071 \\ + 88.895 \\ \hline \end{array}$$

$$\begin{array}{r} 15. \quad 40.3 \\ + 96.7 \\ \hline \end{array}$$

$$\begin{array}{r} 16. \quad 67.35 \\ + 85.70 \\ \hline \end{array}$$

Down

$$\begin{array}{r} 1. \quad 89.903 \\ - 62.634 \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 20.525 \\ + 91.178 \\ \hline \end{array}$$

$$\begin{array}{r} 6. \quad 83.15 \\ - 24.25 \\ \hline \end{array}$$

$$\begin{array}{r} 8. \quad 79.7 \\ - 74.6 \\ \hline \end{array}$$

$$\begin{array}{r} 9. \quad 21.4 \\ + 73.0 \\ \hline \end{array}$$

$$\begin{array}{r} 10. \quad 41.32 \\ + 69.88 \\ \hline \end{array}$$

$$\begin{array}{r} 11. \quad 56.4 \\ + 68.9 \\ \hline \end{array}$$

$$\begin{array}{r} 12. \quad 73.429 \\ - 62.140 \\ \hline \end{array}$$

$$\begin{array}{r} 14. \quad 54.578 \\ + 82.476 \\ \hline \end{array}$$

Puzzle 6

Adding and Subtracting Decimals (cont.)

See page 12 for the Across and Down clues.

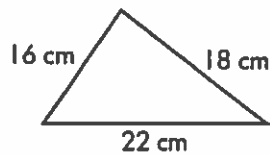
The crossword puzzle grid is shown with the following filled-in numbers and symbols:

- Clue 1: Down 1 cell.
- Clue 2: Across 5 cells: 7, 4, .8, 2, 7.
- Clue 3: Across 4 cells.
- Clue 4: Down 2 cells.
- Clue 5: Across 4 cells.
- Clue 6: Down 2 cells.
- Clue 7: Across 4 cells.
- Clue 8: Down 2 cells.
- Clue 9: Down 2 cells.
- Clue 10: Down 2 cells.
- Clue 11: Across 6 cells, with the 2nd cell shaded.
- Clue 12: Across 5 cells.
- Clue 13: Across 5 cells.
- Clue 14: Across 6 cells.
- Clue 15: Across 3 cells.
- Clue 16: Across 5 cells.

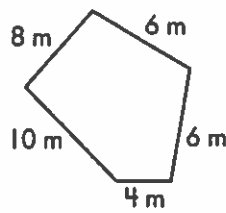
Large 3D-style numbers and symbols scattered to the right of the grid include: 9, 1, 2, 4, 5, 7, and +.

Lesson 10.4 Measuring Perimeter and Area

The **perimeter** is the sum of the lengths of the sides.



$$\begin{array}{r} 16 \\ 18 \\ + 22 \\ \hline 56 \end{array}$$



perimeter = 56 cm

perimeter = 34 m

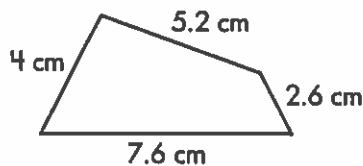
To find the **area** (A) of a rectangle, multiply the measure of its length (ℓ) by the measure of its width (w).



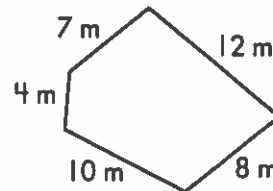
area = $\ell \times w = 15 \times 9 = 135$ square cm

Find the perimeter of each figure.

1.

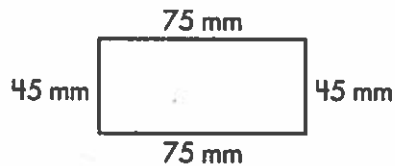


perimeter = _____ cm

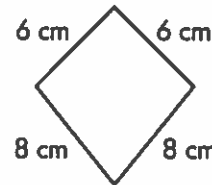


perimeter = _____ m

2.



perimeter = _____ mm



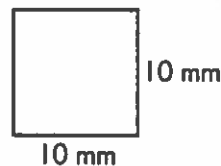
perimeter = _____ cm

Find the area.

3.

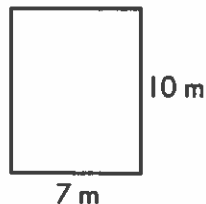


area = _____ square cm



area = _____ square mm

4.



area = _____ square m



area = _____ square cm

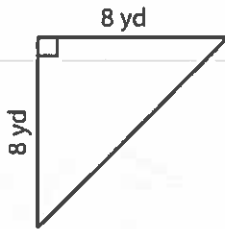
Name : _____

Area of a Triangle

T1L1S1

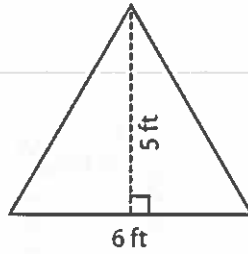
Find the area of each triangle.

1)



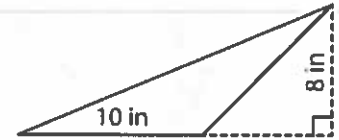
Area =

2)



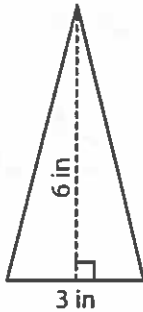
Area =

3)



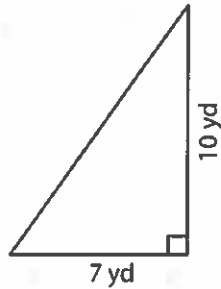
Area =

4)



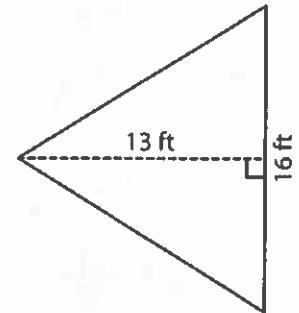
Area =

5)



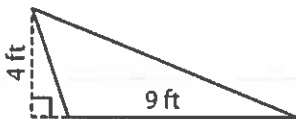
Area =

6)



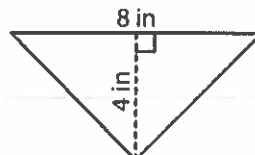
Area =

7)



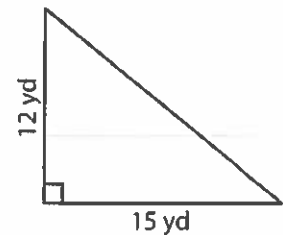
Area =

8)



Area =

9)



Area =

Puzzle 28 **Miles Per Hour**

Use the chart on page 40 to calculate the number of miles per hour (mph) each person drove. Round each answer to the nearest whole number. Write each answer in the number puzzle on page 40.

Across

1. Frank drove to Scenic View in 8 hours. How many mph did he drive? _____
3. Sally drove to Green Valley in 7 hours. How many mph did she drive? _____
4. Amanda drove to Boulder City in 9 hours. How many mph did she drive? _____
5. Sherman drove to Chimney Stack in 6 hours. How many mph did he drive? _____
6. Lea drove to Mountain Top in 6 hours. How many mph did she drive? _____
7. Lance drove to Scenic View in 4 hours. How many mph did he drive? _____
8. Andrea drove to Mountain Top in 8 hours. How many mph did she drive? _____
9. Anthony drove to Boulder City in 20 hours. How many mph did he drive? _____
10. Mary Lou drove to Mountain Top in 9 hours. How many mph did she drive? _____
11. Floyd drove to Scenic View in 6 hours. How many mph did he drive? _____

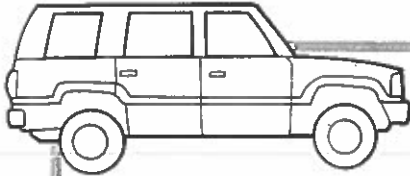
Down

1. Hal drove to Chimney Stack in 2 hours. How many mph did he drive? _____
2. Cassie drove to Chimney Stack in 7 hours. How many mph did she drive? _____
3. Morris drove to Green Valley in 6 hours. How many mph did he drive? _____
4. Trina drove to River City in 6 hours. How many mph did she drive? _____
5. Malcolm drove to River City in 3 hours. How many mph did he drive? _____
6. Paulina drove to Green Valley in 6 hours. How many mph did she drive? _____
7. Dustin drove to River City in 5 hours. How many mph did he drive? _____
10. Adrian drove to Green Valley in 8 hours. How many mph did he drive? _____
11. Jane drove to Mountain Top in 3 hours. How many mph did she drive? _____

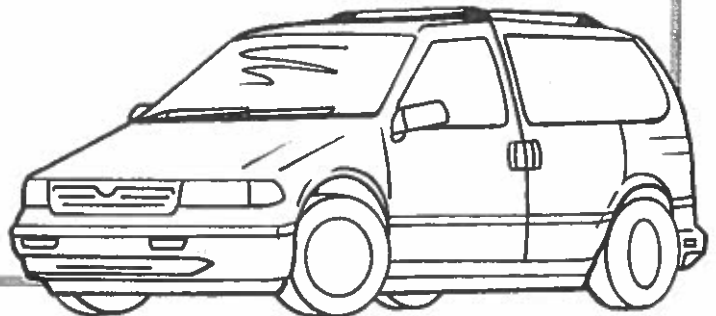
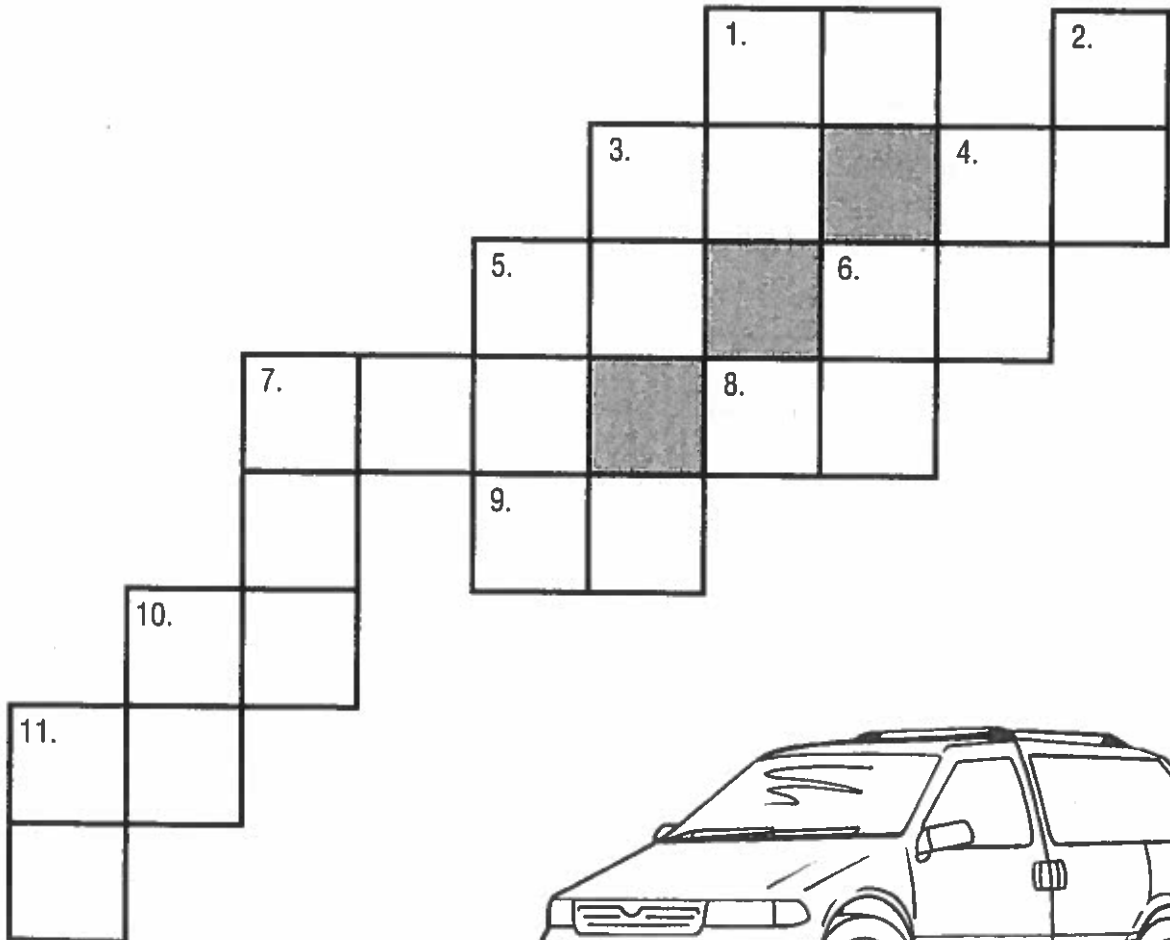
Puzzle 28

Miles Per Hour (cont.)

See page 39 for the Across and Down clues.



Distances			
Chimney Stack	103 Miles	Scenic View	468 Miles
Mountain Top	218 Miles	River City	518 Miles
Green Valley	223 Miles	Boulder City	769 Miles



Lesson 7.1 Multiplying Decimals

The number of digits to the right of the decimal point in the product is the sum of the number of digits to the right of the decimal point of the factors.

$$\begin{array}{r} 0.4 \\ \times 0.2 \\ \hline 0.08 \end{array}$$

$$\begin{array}{r} 0.28 \\ \times 0.6 \\ \hline 0.168 \end{array}$$

$$\begin{array}{r} 3.2432 \\ \times 0.13 \\ \hline 97296 \\ + 32432 \\ \hline 0.421616 \end{array}$$

If needed, add zeros as place holders.

Multiply.

a

$$\begin{array}{r} 1. \quad 0.7 \\ \times 8 \\ \hline \end{array}$$

b

$$\begin{array}{r} 0.08 \\ \times 0.5 \\ \hline \end{array}$$

c

$$\begin{array}{r} 0.325 \\ \times 0.3 \\ \hline \end{array}$$

d

$$\begin{array}{r} 1.68 \\ \times 8 \\ \hline \end{array}$$

e

$$\begin{array}{r} 25 \\ \times 0.7 \\ \hline \end{array}$$

2.
$$\begin{array}{r} 0.03 \\ \times 3.06 \\ \hline \end{array}$$

$$\begin{array}{r} 0.162 \\ \times 0.3 \\ \hline \end{array}$$

$$\begin{array}{r} 8.03 \\ \times 3.5 \\ \hline \end{array}$$

$$\begin{array}{r} 0.297 \\ \times 7.1 \\ \hline \end{array}$$

$$\begin{array}{r} 76.4 \\ \times 3.6 \\ \hline \end{array}$$

3.
$$\begin{array}{r} 53.64 \\ \times 0.37 \\ \hline \end{array}$$

$$\begin{array}{r} 328.1 \\ \times 0.63 \\ \hline \end{array}$$

$$\begin{array}{r} 9.806 \\ \times 31 \\ \hline \end{array}$$

$$\begin{array}{r} 600.3 \\ \times 0.034 \\ \hline \end{array}$$

$$\begin{array}{r} 895 \\ \times 0.63 \\ \hline \end{array}$$

4.
$$\begin{array}{r} 27.1 \\ \times 3.54 \\ \hline \end{array}$$

$$\begin{array}{r} 3.263 \\ \times 18 \\ \hline \end{array}$$

$$\begin{array}{r} 1.253 \\ \times 12 \\ \hline \end{array}$$

$$\begin{array}{r} 58.9 \\ \times 0.038 \\ \hline \end{array}$$

$$\begin{array}{r} 0.82 \\ \times 0.82 \\ \hline \end{array}$$

5.
$$\begin{array}{r} 0.283 \\ \times 0.6 \\ \hline \end{array}$$

$$\begin{array}{r} 0.178 \\ \times 53 \\ \hline \end{array}$$

$$\begin{array}{r} 0.83 \\ \times 0.23 \\ \hline \end{array}$$

$$\begin{array}{r} 3.6 \\ \times 0.025 \\ \hline \end{array}$$

$$\begin{array}{r} 48.2 \\ \times 0.26 \\ \hline \end{array}$$

Show all work. Write answers in simplest form.

Adding and Subtracting Mixed Numbers (1)

1) $1\frac{4}{7} + 6\frac{7}{8}$

2) $1\frac{5}{8} + 5\frac{5}{6}$

3) $5\frac{4}{7} - 4\frac{5}{9}$

4) $12 - 1\frac{8}{11}$

5) $3\frac{4}{9} - \frac{3}{8}$

6) $5\frac{3}{4} + 4\frac{7}{8}$

7) $1\frac{1}{9} + 2\frac{2}{5}$

8) $2\frac{3}{8} - 1\frac{1}{7}$

9) $2\frac{1}{3} + 4\frac{2}{5}$

10) $3\frac{5}{8} - \frac{5}{6}$

Show all work. Write answers in simplest form.

Multiplying Mixed Numbers (A)

$$9\frac{2}{3} \times 2\frac{1}{3} =$$

$$3\frac{2}{4} \times 1\frac{1}{3} =$$

$$1\frac{2}{6} \times 2\frac{3}{7} =$$

$$8\frac{1}{2} \times 3\frac{1}{4} =$$

$$5\frac{2}{3} \times 1\frac{5}{7} =$$

$$2\frac{7}{8} \times 5\frac{6}{9} =$$

$$4\frac{3}{8} \times 1\frac{5}{6} =$$

$$5\frac{1}{3} \times 1\frac{1}{3} =$$

$$2\frac{1}{6} \times 5\frac{1}{4} =$$

$$5\frac{4}{5} \times 3\frac{4}{6} =$$

Discounts: Sale Price

There are two ways to find the reduced price of something that is on sale.

1. Multiply the regular price by the percent of discount and subtract the discount from the regular price to get the sale price. For example, if a CD is regularly \$15 and it is on sale for 20% off, multiply $\$15 \times .20 = \3 , then subtract $\$15 - \$3 = \$12$ to get the sale price.
2. Here is another idea. If the same CD is 20% off, it is 80% "on" (subtract $100\% - 20\% = 80\%$). Multiply $\$15 \times .80 = \12 to get the sale price immediately.

Directions: Calculate the sale price for an item. Find the answer in the boxes at the bottom of the page and shade the entire box in. When you are all done, read the remaining words in order from left to right and top to bottom to make a silly saying.

Regular Price	Discount	Sale Price
\$16.00	25%	?
\$21.00	50%	?
\$8.00	15%	?
\$36.00	20%	?
\$99.00	65%	?
\$7.25	12%	?
\$14.25	20%	?
\$2.50	50%	?
\$5.50	10%	?
\$3.50	30%	?
\$200.00	99%	?
\$44.00	25%	?

\$5.25 over	\$10.50 under	\$6.25 eating	\$34.65 running	\$4.95 water	\$4.00 will	\$1.00 make
\$2.00 should	\$0.50 you	\$3.00 thick	\$2.45 brunch	\$12.00 she	\$1.25 to	\$4.50 in
\$3.10 your	\$33.00 her	\$6.80 yellow	\$6.25 stomach	\$6.38 head	\$28.80 limb	\$11.40 floor

Discounts: Amount Saved

It is easy to calculate how much you will save when you buy something on sale. First, change the percent of the savings to a decimal by moving the decimal point two places to the left (for example, 20% is the same as 20 parts out of 100, or .20 as a decimal, 7% is the same as 7 out of 100, or .07).

Then multiply the regular price by the percentage of discount changed to a decimal. The answer is the amount you save (for example, if something is regularly \$9.00 and it is on sale for 25% off, multiply $\$9.00 \times .25 = \2.25 . That is the amount of the discount).

Directions: Use a ruler to draw a straight line between the amount on the left and the amount saved on the right. Correct responses will cross a number and a letter. Each time the number appears at the bottom of the page, write the letter above it. When you are all done, decode the answer to the riddle.

Regular price: \$12.00. 10% off. ●		● \$0.95
Regular price: \$15.00. 50% off. ●	(T)	● \$0.60
Regular price: \$3.00. 20% off. ●	(D) (2)	● \$5.25
Regular price: \$9.50. 10% off. ●	(5)	● \$1.20
Regular price: \$21.00. 25% off. ●	(G) (U)	● \$7.50
Regular price: \$12.50. 10% off. ●		● \$30.80
Regular price: \$4.25. 60% off. ●	(E) (6) (8)	● \$2.75
Regular price: \$88.00. 35% off. ●	(O) (7)	● \$2.55
Regular price: \$36.00. 40% off. ●	(10)	● \$1.25
Regular price: \$55.00. 5% off. ●	(W) (C)	● \$1.00
Regular price: \$5.00. 20% off. ●	(11) (9)	● \$2.99
Regular price: \$14.95. 20% off. ●	(N) (12)	● \$14.40

What did one pile of sand say to the other?

T
T
?
 9 3 6 1 11 3 6 4 2 12 7 1 10 12 8 5 3 1