

2.1 Puzzle Time

Did You Hear About...

A	B	C	D	E	F
G	H	I	J	K	L
M	N	O	P	Q	R

Complete each exercise. Find the answer in the answer column. Write the word under the answer in the box containing the exercise letter.

4.16 WRITE
-0.375 STUDENT
-3.875 COULDN'T
-0.416 WHO
0.125 WATERPROOF
5 $\frac{11}{200}$ HAVE
$\frac{27}{40}$ GOLDFISH
-1 $\frac{13}{50}$ HE
$\frac{7}{10}$ ESSAY

Write the rational number as a decimal.

- A. $\frac{8}{9} = \overline{.8}$ B. $-\frac{3}{8} = -.375$
 C. $-\frac{5}{12} = \overline{-.416}$ D. $\frac{23}{30} = \overline{.76}$
 E. $1\frac{3}{4} = 1.75$ F. $-3\frac{7}{8} = -3.875$
 G. $4\frac{1}{6} = 4.\overline{16}$ H. $4\frac{4}{25} = 4.16$

Write the decimal as a fraction or mixed number in simplest form.

- I. $-0.7 = -\frac{7}{10}$ J. $0.84 = \frac{21}{25}$
 K. $0.675 = \frac{27}{40}$ L. $-0.252 = -\frac{63}{250}$
 M. $-1.26 = -1\frac{13}{50}$ N. $-2.78 = -2\frac{39}{50}$
 O. $5.055 = 5\frac{11}{200}$ P. $-11.688 = -11\frac{86}{125}$

- Q. You eat one slice of a pizza that is cut into 8 even slices. What is the amount you ate written as a decimal?
 $.125$
- R. At basketball practice, Charlie makes 52 baskets out of 80 shots. What percentage of baskets did he make?
 $.65 = 65\%$

1.75 HE
0.76 SAID
65% INK
0.8 THE
4.16 HIS
$-2\frac{39}{50}$ DIDN'T
$-11\frac{86}{125}$ ANY
$-\frac{63}{250}$ BECAUSE
$\frac{21}{25}$ ON

2.2 Puzzle Time

Where Do Polar Bears Vote?

Write the letter of each answer in the box containing the exercise number.

Add. Write fractions in simplest form.

1. $\frac{5}{6} + \frac{8}{6} = \frac{13}{6} = 2\frac{1}{6}$

2. $\frac{7}{10} + \left(-\frac{3}{5}\right) = \frac{7}{10} + \frac{-6}{10} = \frac{1}{10}$

3. $-\frac{9}{2} + \frac{5}{12} = \frac{-54}{12} + \frac{5}{12} = \frac{-49}{12} = -4\frac{1}{12}$

4. $5\frac{1}{3} + \left(-\frac{5}{9}\right) = \frac{16}{3} + \frac{-5}{9} = \frac{48}{9} + \frac{-5}{9} = \frac{43}{9} = 4\frac{7}{9}$

5. $\frac{3}{5} + \frac{8}{5} = \frac{11}{5} = 2\frac{1}{5}$

6. $-\frac{4}{2} + \frac{3}{2} = \frac{-8}{2} + \frac{3}{2} = \frac{-5}{2} = -2\frac{1}{2}$

7. $3.6 + (-2.4) = 1.2$

8. $-8.2 + 9.1 = 0.9$

9. $6.8 + (-3.2) = 3.6$

10. $-4.5 + (-4.7) = -9.2$

11. $5.327 + (-2.25) = 3.077$

12. $14.62 + (-11.302) = 3.312$

13. Sara has $4\frac{3}{4}$ yards of red fleece and $2\frac{2}{3}$ yards of blue fleece fabric. How many yards of red and blue fleece fabric does she have altogether?

13) $4\frac{3}{4} + 2\frac{2}{3} = \frac{19}{4} + \frac{8}{3} = \frac{57}{12} + \frac{32}{12} = \frac{89}{12} = 7\frac{5}{12}$

14) $7.5 + 8.9 = 16.4$

Answers

O. $2\frac{1}{6}$

T. 3.6

E. $-2\frac{1}{2}$

O. $2\frac{1}{5}$

P. 3.077

L. 16.4

T. $\frac{1}{10}$

H. -9.2

R. $7\frac{5}{12}$

A. $4\frac{7}{9}$

E. $-4\frac{1}{12}$

T. 1.2

N. 3.318

H. 0.9

4	9		2	8	3		12	1	13	7	10		11	5	14	6
---	---	--	---	---	---	--	----	---	----	---	----	--	----	---	----	---

2.3 Puzzle Time

Where Does A Salad Dressing Get A Good Night's Sleep?

Write the letter of each answer in the box containing the exercise number.

KCC

Subtract. Write the fractions in simplest form.

1. $\frac{3}{4} - \frac{9}{4} = \frac{-6}{4} = \frac{-3}{2} = \frac{-1\frac{1}{2}}{2}$ 2. $-3 - \frac{7}{2} = \frac{-6}{2} + \frac{-7}{2} = \frac{-13}{2} = -6\frac{1}{2}$

3. $\frac{1}{5} - \left(-\frac{5}{11}\right) = \frac{-11 + 25}{55} = \frac{14}{55}$ 4. $\frac{5}{8} - \frac{2}{7} = \frac{-35 + -16}{56} = \frac{-51}{56}$

5. $-2\frac{2}{3} - 4\frac{1}{6} = \frac{-8}{3} + \frac{25}{6} = \frac{-16 + 25}{6} = \frac{9}{6} = 1\frac{3}{6} = 1\frac{1}{2}$ 6. $-3\frac{1}{9} - \left(-2\frac{1}{3}\right) = \frac{-29}{9} + \frac{7}{3} = \frac{-29 + 21}{9} = \frac{-8}{9}$

7. $-7 - 3.2 = -10.2$ 8. $6.1 - 5.8 = 0.3$

9. $-4.125 + (+2.8) = -1.325$ 10. $-12.33 - 7.21 = -19.54$

11. $5.67 - (-3.142) = 8.812$ 12. $2.567 - 6.814 = -4.247$

Answers	
O. $-\frac{7}{9}$	A. $-6\frac{1}{2}$
T. 8.812	E. $-1\frac{1}{2}$
O. -10.2	B. -4.247
T. 0.3	E. $\frac{14}{55}$
C. $7\frac{3}{4}$	F. -1.325
L. $3\frac{15}{16}$	E. $-\frac{51}{56}$
D. 14.5	N. -19.54
U. $-6\frac{5}{6}$	

Find the distance between the two numbers on a number line.

13. $-3\frac{1}{4}, 4\frac{1}{2} = 4\frac{1}{2} - (-3\frac{1}{4}) = 7\frac{3}{4}$ 14. $-6.1, 8.4 = 8.4 - (-6.1) = 14.5$

15. Your project requires a board that has a length of $5\frac{3}{16}$ inches. You found a board that has a length of $9\frac{1}{8}$ inches. How much of the board needs to be cut to use it for your project?

$9\frac{1}{8} - 5\frac{3}{16} = \frac{73}{8} - \frac{83}{16} = \frac{146}{16} - \frac{83}{16} = \frac{63}{16} = 3\frac{15}{16}$

6	10		2		12	4	14		7	9		15	3	11	8	5	13	1
---	----	--	---	--	----	---	----	--	---	---	--	----	---	----	---	---	----	---

2.4 Puzzle Time

When Is A Baby Like A Basketball Player?

Write the letter of each answer in the box containing the exercise number.

Multiply. Write fractions in simplest form.

1. $-\frac{4}{5} \cdot \left(-\frac{5}{7}\right) = \frac{+4}{7}$ 2. $2\frac{2}{3} \cdot \left(-4\frac{1}{4}\right) = \frac{8}{3} \cdot \frac{-17}{4} = \frac{-34}{3} = -11\frac{1}{3}$

3. $\left(-\frac{3}{4}\right)^3 = \frac{-27}{64}$ 4. $0.8 \times (-2.1) = -1.68$

5. $-7.5 \times (-0.3) = 2.25$ 6. $(-0.8)^3 = -0.512$

KCF
Divide. Write fractions in simplest form.

7. $\frac{5}{8} \div \left(-\frac{1}{4}\right) = \frac{5}{8} \cdot \frac{-4}{1} = \frac{-5}{2} = -2\frac{1}{2}$ 8. $-1\frac{1}{6} \div \frac{2}{9} = \frac{-7}{6} \cdot \frac{9}{2} = \frac{-21}{4} = -5\frac{1}{4}$

9. $-6\frac{2}{5} \div \left(-2\frac{2}{7}\right) = \frac{-32}{5} \cdot \frac{-7}{10} = \frac{224}{50} = \frac{112}{25} = 4\frac{12}{25}$ 10. $0.3 \div (-1.5) = -0.2$

11. $-5.415 \div (-2.85) = 1.9$ 12. $-16.29 \div 3.62 = -4.5$

13. What is the square foot area of a room with a length of $10\frac{3}{4}$ feet and a width of $8\frac{1}{2}$ feet?

Answers	
R. 2.25	E. $-\frac{27}{64}$
S. $-2\frac{1}{2}$	D. $91\frac{3}{8}$
H. -0.512	E. $-5\frac{1}{4}$
B. 3.35	I. -0.2
L. -4.5	W. 1.9
E. $\frac{4}{7}$	B. -1.68
N. $2\frac{4}{5}$	H. $-11\frac{1}{3}$

14. For a fundraiser, the seventh grade class sells 45 submarine sandwiches. They collect a total of \$150.75. What is the cost per sub?

13) $10\frac{3}{4} \cdot 8\frac{1}{2} = \frac{43}{4} \cdot \frac{17}{2} = \frac{731}{8} = 91\frac{3}{8}$

14) $\frac{150.75}{45} = \$3.35$

11	6	3	9		2	8		13	5	10	14	4	12	1	7
----	---	---	---	--	---	---	--	----	---	----	----	---	----	---	---

Name _____

Date _____

..... Word Problems for Multiplication & Division of Fractions

Each of the word problems below involves either multiplication or division of fractions.
Read each problem carefully and solve to lowest terms when possible.

- 1) One of the cats in the neighborhood had six kittens all about the same size. If each of the new kittens weighed about $5 \frac{1}{2}$ ounces, how much would all the new kittens weigh?
- 2) Mr. Somers had twenty pieces of metal that were all the same length. If each piece of metal was $3 \frac{1}{5}$ inches long and he put them side by side, what would be the total length of all the pieces together?
- 3) Linda started taking piano lessons. She had to practice $1 \frac{3}{4}$ hours each day. If after only 8 days Linda decided she wanted to stop, how many hours did she take lessons?
- 4) For one of their Science experiments the class used $10 \frac{1}{2}$ quarts of water. If there were 7 groups doing the experiment and each group used the same amount of water, how many quarts of water did each group use?
- 5) A bunch of neighborhood kids went on a hike through the nature center. The total mileage they walked was $16 \frac{2}{3}$ miles. If each kid contributed $4 \frac{1}{6}$ miles to the hike, how many kids went on the hike?
- 6) Luke's mission was to pick up a new supply of qualons for the inhabitants of Plutarkia. Luke and his crew picked up 25 cases on qualons and put them aboard his ship. If the total weight of the qualons was $26 \frac{2}{3}$ megalors and each case of qualons weighed the same, how much did each case of qualons weigh?
- 7) Larry bought $12 \frac{1}{2}$ pounds of candy to share with his friends. If he gave $2 \frac{1}{2}$ pounds to each of his friends, how many friends did he share his candy with?
- 8) During the rainstorm last week Jackson and his sister wanted to see how much water they could collect from the rain. In order to do this they put out 12 three-and-a-half liter containers to catch the water in. If all the containers got filled four times, how many liters of water did they collect in all?
- 9) As part of her club activities Mrs. Walmar bought 10 jars of preserves to sell at the club carnival. If each jar of preserves was $9 \frac{1}{2}$ ounces, how many ounces would Mrs. Walmar sell if she sold all the jars?
- 10) Lynn has 15 different color markers in her new case. The total weight of all the markers in the case is $37 \frac{1}{2}$ ounces. If each felt marker is the same, how much does each of Lynn's markers weigh?
- 11) In Language Arts the class was assigned to write a team paper. Each team was to write $5 \frac{1}{2}$ pages for the combined paper. When all the teams put their papers together, there was a total of 44 pages. How many teams had worked on this paper?
- 12) Jason was in the process of writing a story for a school contest. So far he has completed $10 \frac{1}{2}$ pages of this story. On the average each page has taken him $1 \frac{2}{3}$ hours to write. How much time has Jason already put into writing his story?
- 13) Tom ran a complete mile. Sarah ran half of that. Mike ran half of what Sarah ran and Lisa ran half of what Mike ran. What part of a mile did Lisa run?

ANSWERS for Word Problems for Multiplication & Division of Fractions

- | | |
|--------------------|----------------------|
| 1) 33 ounces | 14) 5 1/2 gallons |
| 2) 64 inches | 15) 13 balloons |
| 3) 14 hours | 16) 2 1/4 inches |
| 4) 1 1/2 quarts | 17) 6 1/2 hours |
| 5) 4 kids | 18) 930 inches |
| 6) 1 1/15 megalons | 19) 3 1/4 pounds |
| 7) 5 friends | 20) 46 1/4 miles |
| 8) 168 liters | 21) 3/16 of a gallon |
| 9) 95 ounces | 22) 53 1/5 pounds |
| 10) 2 1/2 ounces | 23) 56 pounds |
| 11) 8 teams | 24) 5 1/5 times |
| 12) 17 1/2 hours | 25) 6 cupcakes |
| 13) 1/8 mile | |