**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_**

**ANSWER KEY**

**Worksheet 15**

1. For the following table, fill in the missing parts for converting fractions to decimals to percent, and vice versa. Show work as necessary.

|  |  |  |
| --- | --- | --- |
| Fraction | Decimal | Percent |
|  | 0.82 | 82% |
|  | .07 | 7% |
| 2/10 | 0.2 | 20% |
|  | 0.075 | 7.5% |
|  | .22 | 22% |
| 4/9 |  | 44.4% |

1. Use a proportion to solve. Show your work.

The distance between two cities is 600 miles. The scaled distance between the cities on a map is drawn as 3 ½ inches. If the distance between two other cities is 1020 miles, what is the scaled distance between them on the map?

Answer:

x = 5.95 inches

600x = 4687.5

1. Find the final cost of an item that costs $85 with 8% sales tax. Show your work. Using a proportion can be helpful.

100x = 680

x = 6.80 + 85

Answer:

x = $91.80

1. Use a proportion to solve. Show your work.

If the ratio of students to teachers in a school is 20 to 1 and there are 800 students, how many teachers are there?

Answer:

x = 40 teachers

20x = 800

1. Solve and show your work. Using a proportion can be helpful.

What is 75% of 95?

Answer:

x = 71.25

100x = 7125

1. Solve and show your work. Using a proportion can be helpful.

This semester, you spent $550 on books. If this amount represents 40% of your student loan, how much is the amount of the loan?

55000 = 40x

Answer:

x = $1375

1. Solve and show your work. Using a proportion can be helpful.

What is the cost of a pair of shoes that is listed for $80 with a 25% discount?

100x = 2000

x = 20 80 - 20

Answer:

x = $60

1. Solve and show your work. Using a proportion can be helpful.

What is the final cost of a pair of jeans that is listed for $60 with a 30% discount and 7% tax?

Answer:

x = $44.94

100x = 294

x = 2.94 42 + 2.94

100x = 1800

x = 18 60-18=42

1. Solve and show your work. Using a proportion can be helpful.

15 is what percentage of 80?

Answer:

x = 18.75

1500 = 80x

10. Solve and show your work. Using a proportion can be helpful.

20 is 20% of what number?

Answer:

x = 100

2000 = 20x

11. Calculate mentally. Show your work for your thought process

25 percent of $160

Answer:

x = 40

¼ of 160

Answers vary

12. Calculate mentally. Show your work for your thought process

15 percent of 80

Answer:

x = 12

.15 x 80

Answers vary

13. Calculate mentally. Show your work for your thought process

20 percent of $45

Answer:

x = 9

1/5 of 45

Answers vary

14. Identify the set(s) of numbers to which each given number belongs.

Use the letters NWZQIR.

Z Q R

1. -1 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Q R

1.  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Q R

1.  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Q R

1. 0.7 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

I R

1.  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

N W Z Q R

1. 4 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

15. Identify the number property that is being used. Be specific to whether it

is Addition or Multiplication.

1.  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Associative Property of Addition

1.  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Commutative Property of Addition

1.  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Commutative Property of Multiplication

1.  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Inverse Property of Multiplication

1.  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Inverse Property of Addition

Distributive Property

1.  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Identity Property of Addition

1.  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_