

Name: _____

Date: _____

Intro to Proportions

Solve each word problem. You MUST write and label a proportion.

1. You can buy six cans of soda for \$2.50. How many cans of soda can you buy for \$10?

$$\frac{\$2.50}{6} = \frac{\$10}{24}$$

2. Baseball cards come in packs of a dozen cards. Matt has 132 baseball cards. How many packs of cards did he buy?

$$\frac{1 \text{ pack}}{12} = \frac{11}{132}$$

3. Grapes are sold for \$6 for 2 bags. If you have \$12, how many bags of grapes can you buy?

$$\frac{\$6}{2} = \frac{\$12}{4}$$

4. A monsoon dumped rain on a coastal area. In twelve hours 20 inches of rain had fallen. How much rain will fall over a period of 2 days, if it continues at this rate?

$$\frac{12 \text{ h}}{20 \text{ in}} = \frac{48 \text{ h}}{80 \text{ in}}$$

5. David paints 3 rooms in 7 hours. At the same pace, how long would it take him to paint 15 rooms?

$$\frac{3}{7 \text{ h}} = \frac{15}{35 \text{ h}}$$

6. Sarah makes cookies at the rate of 2 dozen per hour. She has to make a total of 216 cookies for a wedding party. How long will it take her?

$$\frac{24}{\text{hour}} = \frac{216}{9 \text{ h}}$$

7. A basketball team scored 17 points in the first quarter. If they score at the same rate, how many points will they score for the game?

$$\frac{17}{\frac{1}{4}} = \frac{68}{1}$$

Proportional and Non-Proportional Relationships

For each problem, complete the table, graph the table, and write an equation. Then determine if the relationship is proportional or non-proportional.

1. Sally earned \$8 per hour babysitting.

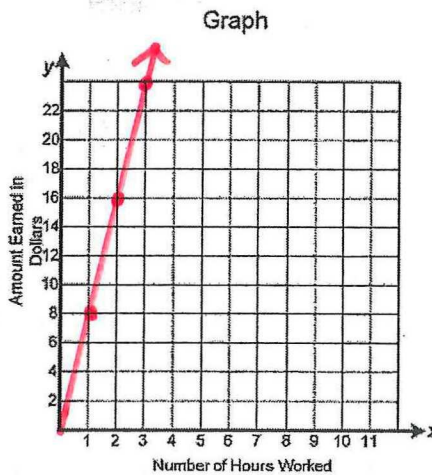
Hours worked (h)	Money Earned (m)
1	8
2	16
3	24
4	32

Equation:

$$8h = m$$

Is it proportional or non-proportional? Explain how you know.

yes



2. Bill earns \$4 per hour plus an additional \$10.

Hours worked (h)	Money Earned (m)
1	14
2	18
3	22
4	26

Equation:

$$4h + 10 = m$$

Is it proportional or non-proportional? Explain how you know.

no

