

IF YOU CAN - PUT X ON THE TOP

### Word Problem Ratios

Name \_\_\_\_\_

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- 1) A worker can dig 8 holes in 5 minutes.  
How many holes can he dig in 20 minutes?

$$\frac{\text{Holes}}{\text{Time}} = \frac{8}{5} = \frac{x}{20}$$

$$\frac{160}{5} = x$$

$$\boxed{32 = x}$$

- 2) A worker can dig 8 holes in 5 minutes.  
How many holes can he dig in 42 minutes?

$$\frac{\text{Holes}}{\text{Time}} = \frac{8}{5} = \frac{x}{42}$$

$$\frac{336}{5} = x$$

$$\boxed{67.2 = x}$$

- 3) A worker can dig 8 holes in 5 minutes.  
How long will it take to dig 24 holes?

$$\frac{\text{Time}}{\text{Holes}} = \frac{5}{8} = \frac{x}{24}$$

$$\frac{120}{8} = x$$

$$\boxed{15 = x}$$

OR  $8 \times \frac{x}{5} = 24 \times 5$   
 $8x = 120$   
 $\frac{8x}{8} = \frac{120}{8}$   
 $\boxed{x = 15}$

- 4) A worker can dig 8 holes in 5 minutes.  
How long will it take to dig 44 holes?

$$\frac{44 \times 5}{8} = x$$

$$\frac{220}{8} = x$$

$$\boxed{27.5 = x}$$

- 5) A store sells 12 jackets and makes a profit of \$42. How much profit would they make if they sell 24 jackets?

$$\frac{\text{Profit}}{\text{Jackets}} = \frac{42}{12} = \frac{x}{24}$$

$$\frac{1008}{12} = x$$

$$\boxed{\$84 = x}$$

- 6) A store sells 12 jackets and makes a profit of \$42. How much profit would they make if they sell 40 jackets?

$$\frac{40 \times 42}{12} = x$$

$$\frac{1680}{12} = x$$

$$\boxed{\$140 = x}$$

- 7) A store sells 12 jackets and makes a profit of \$42. How many jackets do they need to sell to make a profit of \$7

$$\frac{\text{Jackets}}{\text{Profit}} = \frac{12}{42} = \frac{x}{7}$$

$$\frac{84}{42} = x$$
~~12 jackets~~

$$\boxed{2 \text{ JACKETS}}$$

- 8) A store sells 12 jackets and makes a profit of \$42. How many jackets do they need to sell to make a profit of \$600

$$\frac{\text{Jackets}}{\text{Profit}} = \frac{12}{42} = \frac{x}{600}$$

$$\frac{7200}{42} = x$$

$$171.43 = x$$

$$\boxed{172 \text{ JACKETS}}$$

9) Jimmy drives 595km in 7 hours. How far does he drive in 1 hour?

$$\frac{\text{DISTANCE}}{\text{TIME}} = \frac{595}{7} = \frac{x}{1} \leftarrow \text{MEANS NOTHING, REALLY.}$$

$$\boxed{85 \text{ km} = x}$$

10) Jimmy drives 595km in 7 hours. How far does he drive in 11.5 hours?

$$\frac{d}{t} = \frac{595}{7} = \frac{x}{11.5}$$

$$\frac{6842.50}{7} = x$$

$$\boxed{977.5 \text{ km} = x}$$

11) Jimmy drives 595km in 7 hours. How long does it take him to drive 500km?

$$\frac{t}{d} = \frac{500 \times 7}{595} = \frac{x}{500} \times 500$$

$$\frac{3500}{595} = x$$

$$\boxed{5.88 \text{ HOURS} = x}$$

12) Jimmy drives 595km in 7 hours. How long does it take him to drive 30km?

$$\frac{t}{d} = \frac{30 \times 7}{595} = \frac{x}{30} \times 30$$

$$\frac{210}{595} = x$$

$$\boxed{0.35 \text{ hours}}$$

OR

$$0.35 \times 60 \text{ (minutes in an hour)}$$

$$\boxed{21.2 \text{ MINUTES}}$$

OR

$$21.2 \downarrow 0.2 \times 60 \text{ (seconds in a minute)}$$

$$\boxed{21 \text{ min } 12 \text{ s}}$$