

Do Now: Solve the proportion

1) $\frac{45}{60} = \frac{x}{100}$

$x = 75$

2) $\frac{33}{x} = \frac{275}{100}$

$x = 12$

3) $\frac{x}{25} = \frac{76}{100}$

$x = 19$

14

Speed
Dist. to Tree = Speed
Dist. to Tree

Squirrel must run 7 m/s or faster

$$\frac{18}{49.5} = \frac{x}{81}$$

$$81x = 1485$$

$$x = 18$$
BONUS Do Now:

1. 5 is what percent of 10?

50%

$\frac{5}{10} = \frac{x}{100}$

2. What number is 50% of 20?

10

$\frac{x}{20} = \frac{50}{100}$

3. 2 is 50% of what number?

4

$\frac{2}{x} = \frac{50}{100}$

7.3 Solving Percent Problems

7.RP

- SWBAT solve percent problems using proportions.
- SWBAT apply proper techniques to find measures.

Calculators: Yes

$$\frac{\text{is}}{\text{of}} = \frac{p\%}{100}$$

Solving Percent Problems

To represent "a is p percent of b," use the proportion:

$$\frac{a}{b} = \frac{p\%}{100}$$

$$\frac{\text{part}}{\text{whole}} = \frac{\text{percent } \%}{100}$$

Hint: use the saying "is over of"

$$\frac{\text{"is"}}{\text{"of"}} = \frac{p\%}{100}$$

24 is 0.8% of what number?

$$\frac{\text{is}}{\text{of}} = \frac{p\%}{100} \leftarrow \text{never changes}$$

$$\frac{24}{x} = \frac{0.8}{100}$$

$$0.8x = 24(100)$$

$$\frac{0.8x}{0.8} = \frac{2400}{0.8}$$

$$x = 3,000$$

3,000

126 is what percent of 150?

$$\frac{\text{is}}{\text{of}} = \frac{p\%}{100}$$

$$\frac{126}{150} = \frac{x}{100}$$

$$150x = 126(100)$$

$$\frac{150x}{150} = \frac{12,600}{150}$$

$$x = 84$$

84%

What number is 0.5% of 65?

$$\frac{x}{65} = \frac{0.5}{100}$$

$$100x = 65(0.5)$$

$$\frac{100x}{100} = \frac{32.5}{100}$$

$$x = 0.325$$

0.325

1. 15 is 0.3% of what number?

$$x = 5,000$$

2. 84 is what percent of 70?

$$x = 120\%$$

3. What number is 45% of 246?

$$x = 110.7$$

$$\frac{x}{246} = \frac{45}{100}$$

$$\frac{100x}{100} = \frac{45(246)}{100}$$

What number is 70% of 8y?

$$\frac{x}{8y} = \frac{70}{100}$$

$$100x = 70(8y)$$

$$\frac{100x}{100} = \frac{560y}{100}$$

$$x = 5.6y$$

$$\frac{5.6y}{8y} = \frac{70}{100}$$

5.6y

3y is 48% of what number?

$$\frac{3y}{x} = \frac{48}{100}$$

$$3y(100) = 48x$$

$$300y = 48x$$

$$6.25y = x$$

Of 80 dogs in an animal shelter, 15 were adopted this week. What percentage of dogs were adopted?

$$\frac{15}{80} = \frac{p\%}{100}$$

18.75% of dogs were adopted

$$\frac{15}{80} = \frac{x}{100}$$

$$80x = 15(100)$$

$$80x = 1500$$

$$\frac{80x}{80} = \frac{1500}{80}$$

$$x = 18.75$$

18.75%

Your school newspaper's budget this year is 160% of last year's budget, which was \$2,125. What is this year's budget?

There are about 52 weeks in a year and two weekend days each week. About what percent of the year falls on a weekend? Round your answer to the nearest tenth of a percent.

Exit Pass 7.3

You ask 356 people if they enjoy drawing. Of these people, 89 say that they do like to draw. What percent of the people surveyed do not like to draw?

"Don't blame the sea if you cannot catch a fish."

Working individually or with a partner, complete the workbook.

Workbook pg.



Reflection of Today's Lesson**7.3 Solving Percent Problems**

7.RP

- SWBAT solve percent problems using proportions.
- SWBAT apply proper techniques to find measures.

Calculators: Yes**Homework**

pg. 329 #7-29 odds, 30

