

9.2 Percents

PRACTICE

Directions: Set up a proportion and then solve it. Round to the nearest hundredth.

1) What percent of 54 is 40?

$$\frac{x}{100} = \frac{40}{54}$$

$$\frac{4000}{54} = \frac{54x}{54}$$

$$x = 74.07\%$$

2) 68 is 35% of what number?

$$\frac{35}{100} = \frac{68}{x}$$

$$\frac{35x}{35} = \frac{6800}{35}$$

$$x = 191.29$$

3) 168% of 80 is what?

$$\frac{168}{100} = \frac{x}{80}$$

$$\frac{168x}{100} = \frac{13440}{100}$$

$$x = 134.40$$

4) 88 is what percent of 105?

$$\frac{x}{100} = \frac{88}{105}$$

$$\frac{105x}{105} = \frac{8800}{105}$$

$$x = 83.81\%$$

5) What is 15% of 90?

$$\frac{15}{100} = \frac{x}{90}$$

$$\frac{150x}{100} = \frac{1350}{100}$$

$$x = 13.5$$

6) 40 is 150% of what number?

$$\frac{150}{100} = \frac{40}{x}$$

$$\frac{150x}{150} = \frac{4000}{150}$$

$$x = 26.67$$

Directions: Set up a proportion for the following. Then solve your proportion. Round to the nearest hundredth.

7) Before going home for the weekend Mr. Brust grades 50 of the 65 math tests. What percent of the tests did he grade before going home?

$$\frac{x}{100} = \frac{50}{65}$$

$$\frac{65x}{65} = \frac{5000}{65}$$

$$x = 76.92\%$$

8) Bean is a 45% free throw shooter. About how many free throws did he take if he made 9 in the game?

$$\frac{45}{100} = \frac{9}{x}$$
$$\frac{45x}{45} = \frac{900}{45}$$

$$x = 20 \text{ ft attempted}$$

9) Sully wants to buy the latest iPhone for \$1199. He knows that he'll have to pay 6% sales tax on the phone. How much tax will he pay?

$$\frac{6}{100} = \frac{x}{1199}$$
$$\frac{100x}{100} = \frac{7194}{100}$$

$$x = \$71.94$$

10) Mr. Kelly is really good at guessing on multiple choice tests. He can generally guess with 35% accuracy. How many questions will he get right if there are 60 questions on the test?

$$\frac{35}{100} = \frac{x}{60}$$
$$\frac{100x}{100} = \frac{2100}{100}$$

$$x = 21 \text{ questions right}$$