

$$\frac{\text{is}}{\text{of}} = \frac{\text{percent}}{100}$$

1) What number is 120% of 30?

$$30 \cdot \frac{x}{30} = \frac{120}{100} \cdot 30$$

$$x = 36$$

With all 12 problems, your setup and answer must match the key, but you may choose to reduce differently, or not at all.

5) $12\frac{1}{2}\%$ of what number is 30?

$$100x \cdot \frac{30}{x} = \frac{12.5 \cdot 100}{100} \cdot 30$$

$$3000 = 12.5x$$

$$\frac{3000}{12.5} = \frac{12.5x}{12.5}$$

$$240 = x$$

100x LCD

$$\begin{array}{r} 125 \\ \times 2 \\ \hline 250 \\ 125 \\ \times 4 \\ \hline 500 \end{array}$$

9) 22% of 70 is what number?

$$70 \cdot \frac{x}{70} = \frac{22}{100} \cdot 70$$

$$x = \frac{154}{10}$$

$$x = 15.4$$

2) 12% of what number is 18?

$$100x \cdot \frac{18}{x} = \frac{12}{100} \cdot 100x$$

$$\frac{450}{3} = \frac{1800}{12}$$

$$150 = x$$

6) How many skateboards is 80% of 50 skateboards?

$$50 \cdot \frac{x}{50} = \frac{80}{100} \cdot 50$$

$$x = 40 \text{ skateboards}$$

10) \$9 is $4\frac{1}{2}\%$ of what amount?

$$100x \cdot \frac{9}{x} = \frac{4.5}{100} \cdot 100x$$

$$900 = 4.5x$$

$$\frac{900}{4.5} = \frac{4.5x}{4.5}$$

$$200 = x$$

3) 21 is what percent of 75?

$$4 \cdot 100 \cdot \frac{21}{3 \cdot 75} = \frac{x}{100} \cdot 100$$

$$\frac{84}{3} = x$$

$$28 = x$$

$$28\%$$

7) 2.6 is 40% of what number?

$$100x \cdot \frac{2.6}{x} = \frac{40}{100} \cdot 100x$$

$$260 = 40x$$

$$\frac{260}{40} = \frac{40x}{40}$$

$$6.5 = x$$

You could reduce $\frac{26}{4}$ to $\frac{13}{2}$ and then divide, but you would still get $x = 6.5$.

11) 19 smartphones is what percent of 500 smartphones?

$$100 \cdot \frac{19}{500} = \frac{x}{100} \cdot 100$$

$$\frac{3.8}{5} = x$$

$$3.8\%$$

In fraction form the answer is $3\frac{4}{5}\%$

4) 1.2% of \$40 is how much money?

$$40 \cdot \frac{x}{40} = \frac{1.2}{100} \cdot 40$$

$$x = \frac{4.8}{10}$$

$$x = .48$$

8) What percent of 44 dogs is 110 dogs?

$$100 \cdot \frac{110}{44} = \frac{x}{100} \cdot 100$$

$$100 \cdot 55 = x$$

$$5500 = x$$

$$50 \cdot 100 \cdot \frac{5}{100} = x$$

$$250 = x$$

$$250\%$$

12) What is 35% of 40 hours?

$$40 \cdot \frac{x}{40} = \frac{35}{100} \cdot 40$$

$$x = \frac{7 \cdot 35}{20} \cdot 4$$

$$x = \frac{7 \cdot 42}{20}$$

$$x = 14 \text{ hours}$$