Algebra I

3-7

(Day 1)

Solve Percent Problems

Percent - parts per 100

%

The Percent Proportion -

$$\frac{a}{b} = \frac{P}{100}$$

$$\frac{3}{4} = \frac{P}{100}$$

$\times 25$

$P = 75$

75%

Solve.

1) 32% of 300 is what number?

$(0.32)(300) = x$

$96 = x$

$\{96\}$

or

$\frac{32}{100} = \frac{x}{300}$

$\times 3$

$\{96\}$

2) 8 is 20% of what number?

$\frac{8}{.2} = \frac{(.2)x}{.2}$

$40 = x$

$\{40\}$

or

$\frac{20}{100} = \frac{8}{x}$

$8\left(\frac{x}{8} = \frac{100}{20}\right)$

$x = 40$ $\{40\}$

Solve.

3) What percent of 45 is 7.2?

$\frac{x \cdot 45}{45} = \frac{7.2}{45}$

$x = .16$

$\{16\%\}$

or

$\left(\frac{P}{100} = \frac{7.2}{45}\right)100$

$P = 16$

$\{16\%\}$

4) What number is 75% of 164?

$x = (.75)(164)$

$x = 123$

$\{123\}$

or

$\left(\frac{75}{100} = \frac{x}{164}\right)164$

$123 = x$

$\{123\}$

Solve.

5) The chess club has a goal of 36 new members. So far, they have 30. What percent of the club's goal have they achieved?

$\left(\frac{30}{36} = \frac{P}{100}\right)100$

$83.\overline{3} = P$

$\{83\frac{1}{3}\%\}$

6) A scale model of a home is 5% of its original size. If the height of the actual house is 30 feet, how tall will the model be?

$(0.05)(30) = x$

$1.5 = x$

1.5 Ft

* To change a percent to a decimal, move decimal 2 places to the left.

Assignment:
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2, 3-17 odd,
22, 23, 26-29
33-35 all.