

Chapter 5 Section 4

Percent Equations: Part III (Solving for the Base)

Percent is a representation of a part of some quantity. The standard formula to solve for any percentage is :

$$\mathbf{PERCENT \times BASE = AMOUNT}$$

In 1997, the average salary of a major league baseball player was \$1,320,000. This was 60% of the average salary of a professional basketball player in the NBA. To find the average salary of a NBA basketball player, you must answer the question “60% of what salary is \$1,320,000?”

The average salary of a NBA basketball player can be found by solving the basic percent equation of the base.

$$\begin{array}{rclcl} \text{Percent} & \times & \text{Base} & = & \text{Amount} \\ 60\% & & n & & 1,320,000 \end{array}$$

$$0.60 \quad \times \quad n \quad = \quad 1,320,000$$

$$\frac{0.60n}{0.60} = \frac{1,320,000}{0.60}$$

$$n = 2,200,000$$

The Average salary of a NBA basketball player was \$2,200,000.

Example1: 18% of what is 900?

Solution: $0.18 \times n = 900$

$$\frac{0.18n}{0.18} = \frac{900}{0.18}$$

$$n = 5000$$

Example 2: 30 is 1.5% of what?

Solution: $0.015 \times n = 30$

$$\frac{0.015n}{0.015} = \frac{30}{0.015}$$

$$n = 2000$$