

# SOLVING PERCENT EQUATIONS BY TRANSLATING

THE PERCENT EQUATION:

$$\text{PART} = \text{PERCENT} \times \text{BASE}$$

## MISSING PART

Ex:) WHAT IS 10% OF 50?

↓ ↓ ↓ ↓ ↓

$$n = .1 \times 50$$
$$\boxed{n = 5}$$

0.20:) WHAT IS 20% OF 35?

↓ ↓ ↓ ↓ ↓

$$n = .2 \times 35$$
$$\boxed{n = 7}$$

## MISSING BASE

Ex:) 8 IS 5% OF WHAT NUMBER?

↓ ↓ ↓ ↓ ↓

$$\frac{8}{.05} = \frac{.05 \times n}{.05}$$
$$160 = n$$
$$\boxed{n = 160}$$

0.15:) 12 IS 15% OF WHAT NUMBER?

↓ ↓ ↓ ↓ ↓

$$\frac{12}{.15} = \frac{.15 \times n}{.15}$$
$$80 = n$$
$$\boxed{n = 80}$$

### Missing %

Ex:

7 IS WHAT PERCENT OF 28?

$$\begin{array}{ccccccc} \downarrow & \downarrow & & \downarrow & & \downarrow & \downarrow \\ \frac{7}{28} = & & n\% & & \times & \frac{28}{28} \end{array}$$

$$0.25 = n\%$$

$$n = 25\%$$

Ex:

30 IS WHAT PERCENT OF 600?

$$\begin{array}{ccccccc} \downarrow & \downarrow & & \downarrow & & \downarrow & \downarrow \\ \frac{30}{600} = & & n\% & & \times & \frac{600}{600} \end{array}$$

$$0.05 = n\%$$

$$n = 5\%$$