

FINDING MISSING VALUES

NAME _____ PERIOD _____

FIND THE SIDE OF A SQUARE GIVEN THAT THE AREA IS 36.

SO YOU KNOW THAT:

$$A = S^2$$

USING THE SUBSTITUTION PROPERTY

$$36 = S^2$$

TAKE THE SQUARE ROOT

$$6 = S$$

THEREFORE THE SIDE IS 6.

NOW LET'S TRY IT WITH OTHER SHAPES. FIND THE LENGTH OF THE MISSING PIECE OF THE SHAPE.

TRIANGLE

The area of a **triangle** is 36 in² and the base is 12 in. Find the height.

WRITE THE FORMULA FOR AREA OF A TRIANGLE:

$$A = \frac{1}{2} \cdot b \cdot h$$

PLUG IN VALUES FOR AREA AND BASE:

$$\underline{\hspace{2cm}} = \frac{1}{2} \cdot \underline{\hspace{2cm}} \cdot h$$

SOLVE FOR H

RECTANGLE

The area of a **rectangle** is 42 in² and the height is 14 in. Find the base.

WRITE THE FORMULA FOR AREA OF A RECTANGLE:

PLUG IN VALUES FOR AREA AND HEIGHT

SOLVE FOR B

PARALLELOGRAM

The area of a **parallelogram** is 60 in² and the height is 12 in. Find the base.

TRAPEZOID

The area of a **trapezoid** is 18 in² and the bases are 4 in and 8 in. Find the height.