

Anti-Quiz # 5

The side of a square is growing at a constant rate of 2 inches per second, starting at $a = 0$ inches. What is the area of this square after 10 seconds?

SOLUTION.

The area of a square is $S = a^2$. After 10 seconds, this square will have a side $a = 2 \cdot 10 = 20$ in. Substitute into the formula for S and get

$$S = a^2 = (20 \text{ in})^2 = \boxed{400 \text{ in}^2}$$

The side of a square is growing at a constant rate of 3 inches per second, starting at $a = 0$ inches. What is the area of this square after 10 seconds?

SOLUTION.

The area of a square is $S = a^2$. After 10 seconds, this square will have a side $a = 3 \cdot 10 = 30$ in. Substitute into the formula for S and get

$$S = a^2 = (30 \text{ in})^2 = \boxed{900 \text{ in}^2}$$

The side of a square is growing at a constant rate of 5 inches per second, starting at $a = 0$ inches. What is the area of this square after 10 seconds?

SOLUTION.

The area of a square is $S = a^2$. After 10 seconds, this square will have a side $a = 5 \cdot 10 = 50$ in. Substitute into the formula for S and get

$$S = a^2 = (50 \text{ in})^2 = \boxed{2500 \text{ in}^2}$$