

Area of Rectangles and Square Quiz

Name KEY

- 1) A room measures 7.5 feet by 9 ft. How many square feet of carpet will you need to cover the floor?

$$\begin{aligned} A &= l \cdot w \\ A &= (7.5)(9) \\ A &= 67.5 \text{ ft}^2 \end{aligned}$$

- 2) A square room is being built. The length of one of the sides is 12.25 feet. What is the area of the floor?

$$\begin{aligned} A &= s^2 \\ A &= (12.25 \text{ ft})^2 \\ A &= 150.0625 \text{ ft}^2 \end{aligned}$$

- 3) A floor has an area of 259 sq. ft. and a length of 14 feet. How wide is the room?

$$\begin{aligned} A &= l \cdot w \\ \frac{259 \text{ ft}^2}{14} &= \frac{14(w)}{14} \end{aligned} \quad \begin{aligned} 18.5 &= w \\ 18.5 \text{ ft} & \end{aligned}$$

- 4) A square has a side with a length of 4.25 cm. What is the area of the square?

$$\begin{aligned} A &= s^2 \\ A &= (4.25)^2 \\ A &= 18.0625 \text{ cm}^2 \end{aligned}$$

- 5) The area of a square is 121 in^2 . What is the length of one side?

$$\begin{aligned} A &= s^2 \\ \pm \sqrt{121 \text{ in}^2} &= \sqrt{s^2} \\ \pm 11 &= s \end{aligned} \quad \begin{aligned} s &= 11 \text{ in} \end{aligned}$$

- 6) The area of a room is 600 square feet. If the room is 24 feet long, how wide is it?

$$\begin{aligned} A &= l \cdot w \\ \frac{600}{24} &= \frac{24(w)}{24} \\ 25 &= w \end{aligned} \quad \begin{aligned} 25 \text{ feet} \end{aligned}$$