

## AREA EXERCISES - 2

Fill in the blanks to complete each of the following statements.

- 1) The formula for the area of a circle is \_\_\_\_\_.
- 2) *Length times width* is the formula for the area of a \_\_\_\_\_.
- 3) Area is measured in \_\_\_\_\_ units.
- 4) In the formula  $A = \pi r^2$ , what part of the circle does the variable **r** represent? \_\_\_\_\_
- 5)  $A = \frac{1}{2}bh$  is the formula for the \_\_\_\_\_ of a \_\_\_\_\_.
- 6) The two common substitutions for pi ( $\pi$ ) are: \_\_\_\_\_ and \_\_\_\_\_.
- 7) In the formula for the area of a triangle, the **b** represents the \_\_\_\_\_, and the **h** represents the \_\_\_\_\_.

Solve the following problems. Diagrams can be very helpful when working these problems.

- 8) What is the radius of a circle that has an area of  $144\pi \text{ m}^2$ ?
  
  
  
  
  
  
  
  
  
  
- 9) The front of a corner cabinet is  $4\frac{1}{2}$  feet wide and sits  $2\frac{3}{4}$  feet out from the corner. What square footage does the base of the cabinet sit on?
  
  
  
  
  
  
  
  
  
  
- 10) Allen bought a lot 120 ft. deep with a square footage of 9600. The frontage of his property is how long?

1)  $A = \pi r^2$

3) square

5) area, triangle

7) base, height

9)  $6\frac{3}{16} \text{ ft}^2$

2) rectangle

4) radius

6) 3.14,  $\frac{22}{7}$

8) 12 m

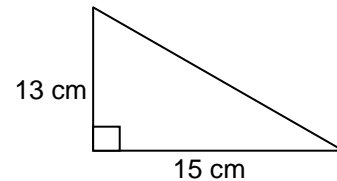
10) 80 ft

11) Mr. Gearly has a triangular lot with a frontage of 48 ft. and an altitude of 140 ft. What is the value of this lot at \$12.75 a square foot?

12) How many square feet of carpet would be needed to carpet a square bedroom that measures 15 ft. on a side?

13) The square footage of floor space in a reception hall is  $4800 \text{ ft}^2$ . If the hall is 100 feet long, how wide is it?

14) Find the area of the figure below.



15) Connie has a round pool with a diameter of 15 ft. How much will it cost to purchase a tarp to cover it for the winter if the tarp costs \$37.95 per square yard? Use 3.14 for  $\pi$ . Round area to the nearest square yard before figuring cost.

16) If the Shuler's square living room is 169 square feet, what is the length of each wall?

17) Mr. Lincoln has a circular paddock for his horses that has a radius of 100 m. What is its area to the nearest square meter?

(Use  $\frac{22}{7}$  for  $\pi$ )

18) How many square feet of siding would be needed to cover the triangular eave of a house if it is 20 ft. long and 5 ft. high?

19) Jodie has 3 horses and needs to build a corral that provides 100 square meters for each animal. If the corral is to be square, what will the length of each side be? Round your answer to the nearest meter.

20) Mrs. Williams has a flower garden 144 inches long and 48 inches wide. If she can plant  $1\frac{1}{2}$  geraniums per *square foot*, how many geraniums can she plant in her garden?

11) \$42,840  
12)  $225 \text{ ft}^2$

13) 48 ft  
14)  $97.5 \text{ cm}^2$

15) \$759  
16) 13 ft

17)  $31,429 \text{ m}^2$   
18)  $50 \text{ ft}^2$

19) 17 m  
20) 72 geraniums