

Geometry: Area/Circumference Word Problems—Practice

For π , use 3.14

1. I have a circular pool that has a radius of 9 feet. How much fence must I buy to enclose the pool?
2. One wall of a room to be painted is 12 feet long and 9 feet high. There is a door and a window in the wall. The door is 6 feet high and 3 feet wide. The window is 3 feet high by 2 feet wide. If a can of paint covers 20 square feet, how many cans of paint are required?
3. A rectangular lawn measures 50 feet by 25 feet and has three flower beds. One of the beds is circular with an 8 foot diameter, one is a 7 foot square and the third is rectangular with a width 9 feet and a length that is 3 times its width.
 - a. If a bag of mulch covers 90 square feet, how many bags are required to cover the flower beds?
 - b. It is desired to put a fence around each of the mulched areas. How many feet of fence are required?
 - c. What is the area of the lawn not covered by mulch?
 - d. If a bag of lawn seed covers 100 square feet, how many are needed to cover the area not covered by mulch?
4. The floor plan of a room is as follows:

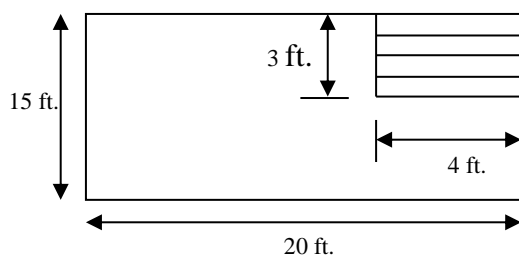


Figure 1

The floor is 20 feet long and 15 feet wide with a set of stairs in the corner which are 4 feet long and 3 feet wide.

- a. It is desired to carpet the floor, but not the stairs. How many square feet of carpet are required?
 - b. Baseboard is to be placed around the perimeter of the carpet. How many feet of baseboard are required?
5. A plot of land is 180 feet long and 121 feet wide. An acre is 43,560 square feet. How many acres does the plot contain?

6. It is desired to fence in a circular pool that has a radius of 8 feet. This fence is to be 6 feet from the edge of the pool.
 - a. How many feet of fence are needed?
 - b. What is the area between the fence and the pool?
7. A painting is 38 inches long and 18 inches wide. There is a 3 inch frame all around the painting.
 - a. What is the area of the frame in square inches?
 - b. What is the area of the frame in square feet? (round to nearest tenth)
8. If the perimeter of a rectangle is 36 inches and one side is 6 inches long, what is the area of the rectangle?
9. My neighbor wants to fence in two-thirds of his backyard for a dog run. His backyard is 9,000 square feet in area and one side of the proposed dog run is 100 feet long. How many feet of fence does he need?
10. Given a triangle with all sides the same length, the height is 6 inches and the area is 36 square inches. What is the perimeter of the triangle?
11. I have a cabinet drawer that is 6 inches wide, 12 inches long and 4 inches high. To cover the inside with contact paper, how many square inches of contact paper is required?
12. A container has the shape of a right-circular cylinder. It's diameter is 3 feet and stands 4 feet high. The entire outside surface is to be painted, and each can of paint covers 25 square feet.
 - a. How many square feet are to be painted?
 - b. How many cans of paint are needed?

Answer Key—

1. 56.52 feet
2. 5 cans
3. a. 4 bags
b. 125.12 feet
c. 907.76 square feet
d. 10 bags
4. a. 288 square feet
b. 70 feet
5. .5 acre
6. a. 87.92 feet
b. 414.48 square feet
7. a. 372 square inches
b. 2.6 square feet
8. 72 square inches
9. 320 feet
10. 36 inches
11. 216 square inches
12. a. 51.81 square feet
b. 3 cans