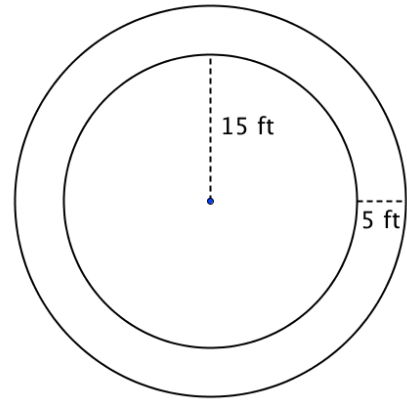


8.1c Homework: Areas of Irregular Shapes and Expressions

Solve the following area problems. Write an expression showing how you got the area.

1. Nico is building a deck around the circular pool in his back yard. The pool has a radius of 15 ft. The deck will be 5 ft wide.

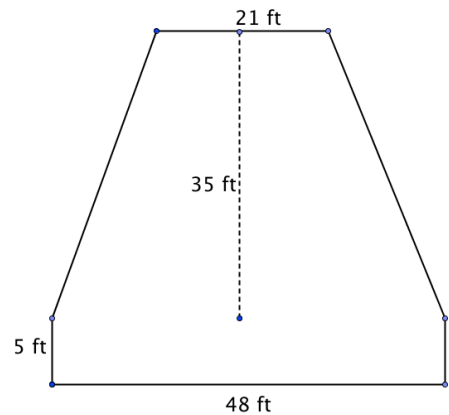
a. Find the area of the deck.



2. A stage with a trapezoidal area upstage and a rectangular area downstage is illustrated in the figure to the right. Find the area of the stage.

a. What is the area of just the rectangular portion of the stage?

b. What portion of the stage is the rectangular portion?

**8.1d Homework: Review Areas of Triangles, Parallelograms, Trapezoids; Circle Area and Circumference**

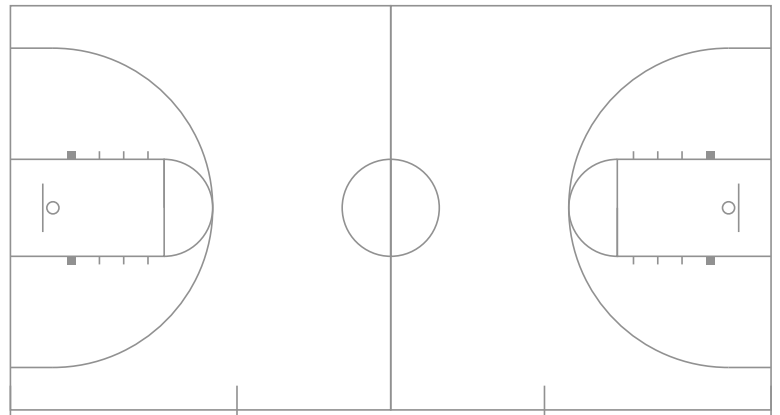
3. Wallpaper comes in rolls that are 60 feet long and 2 feet wide. How many rolls of wallpaper will it take to cover 700 square feet?

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4. The diameter of the earth is about 7926 miles.
- Find the distance around the earth at the equator.
 - If there are 5280 feet in every mile, what is the distance around the Earth in feet?
 - Suppose you can jog at a rate of 2 miles every 15 minutes. At this rate, how long would it take you to walk around the Earth?

5. The three-point line in basketball is approximately a semi-circle with a radius of 19 feet and 9 inches. The entire court is a rectangle 50 feet wide by 94 feet long. What is the approximate area of the court that results in 3 points for a team?



6. You're the manager of a county recreation center that has a 50 by 25 meter rectangular pool. Currently, there is an 1.5 meter cement walkway around the pool (see diagram). The community is concerned about the safety of the walkway and would like to cover it with a non-slip rubber substance that costs \$78 a square meter to be installed. The county has budgeted \$15,000 for the project. Is that enough money to cover the walkway? Explain your answer.

