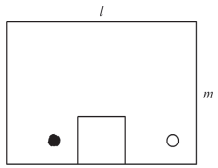
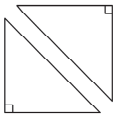
32. In miniature golf, Sarai wants to hit the golf ball (white circle) into the hole (black circle). She wants to accomplish this in one stroke, as easily as possible. Which statement best describes what she should do?

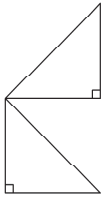


33. Find the coordinates of the image of the point $(-5, 7)$ when it is reflected across the line $y = 11$.

34. Tell whether the transformation appears to be a translation. Explain.



35. Tell whether the transformation appears to be a translation. Explain.



36. Translate the triangle with vertices $A(3, 4), B(2, -1)$, and $C(4, 12)$ along the vector $\langle -1, 3 \rangle$. Find the coordinates of the new image.

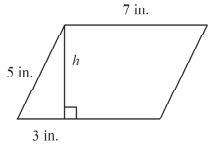
37. Tell whether the transformation appears to be a rotation. Explain.

38. Rotate ΔRSQ with vertices $R(4, -1)$, $S(5, 3)$, and $Q(3, 1)$ by 90° about the origin.

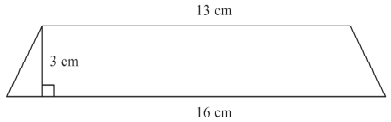
39. ΔABC has vertices $A(3, 1)$, $B(4, 5)$, and $C(2, 3)$. Rotate ΔABC 90° counterclockwise about the origin and then reflect it across the x-axis.

40. On a sketch of a mural, 3 inches represents one foot in the mural. A door in the sketch is 2 inches wide by 5 inches high. What is the perimeter of the door in the mural expressed in inches?

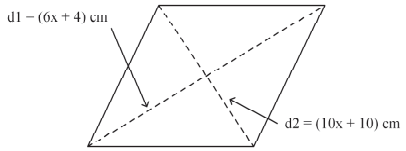
41. Find the area of the parallelogram.



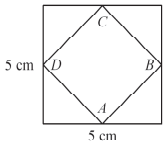
42. Find the area of a trapezoid, in which $b_1 = 13\,\text{cm}$, $b_2 = 16\,\text{cm}$, and $h = 3\,\text{cm}$.



43. Find the area of the rhombus.

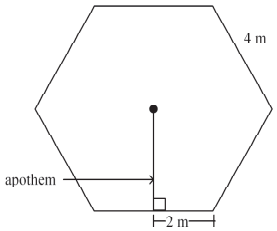


44. The vertices of square *ABCD* are the midpoints of the sides of a larger square. Find the perimeter and the area of square *ABCD*. Round to the nearest hundredth.

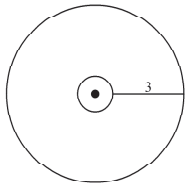


45. A store sells circular rugs in three different sizes. The rugs come in diameters of 8 ft, 12 ft, and 16 ft. Find the areas of the three different sizes of rugs. Use 3.14 for π and round answers to the nearest tenth.

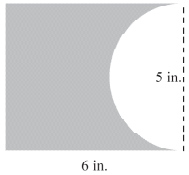
46. Find the area of a regular hexagon with side length 4 m. Round to the nearest tenth.



47. Two circles have the same center. The radius of the larger circle is 3 units longer than the radius of the smaller circle. Find the difference in the circumferences of the two circles. Round to the nearest hundredth.

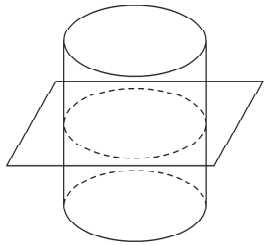


48. Find the shaded area. Round to the nearest tenth.



49. The base length of the triangle with vertices $A(1, 1), B(9, 1)$, and $C(5, 5)$ is multiplied by 2. Describe the effect of change on the area.

50. Describe the cross section.

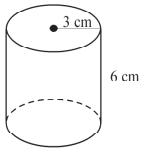


51. Find the volume of a right rectangular prism with length 12 in., width 10 in., and height 6 in. Round to the nearest tenth, if necessary.

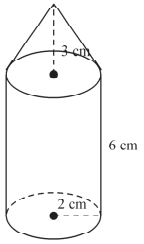
52. A fish tank is in the shape of a rectangular prism. The height of the tank is 18 in. The width of the tank is 17 in. The length of the tank is 38 in. Find the amount of water the tank can hold to the nearest gallon. (*Hint*: 1 gallon ≈ 0.134 ft^3.)

53. Find the volume of a cylinder with a base area of 25π in^2 and height equal to the radius. Give your answer both in terms of π and rounded to the nearest tenth.

54. The radius and height of the cylinder are multiplied by 4. Describe the effect on the volume.



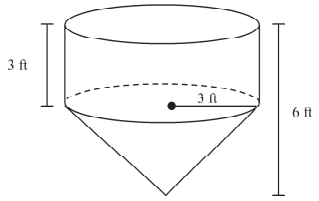
55. Find the volume of the composite figure. Round to the nearest tenth. (*Hint*: Volume of a cone is $V = \frac{1}{3}\pi r^2 h$.)



56. Find the volume of a rectangular pyramid with length 11 m, width 7 m, and height 8 m. Round to the nearest tenth, if necessary.

57. The base area of a model square pyramid is 1,000 sq ft. The height of the pyramid is 100 ft. Find the volume of the pyramid in cubic feet. Round to the nearest cubic foot.

58. Find the volume of the composite figure. Round to the nearest hundredth.



59. Find the diameter of a sphere with volume 972π in^3.