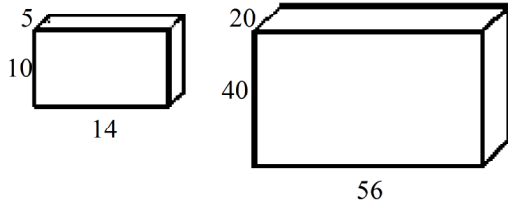


Geometry Chapter 11 Practice Test

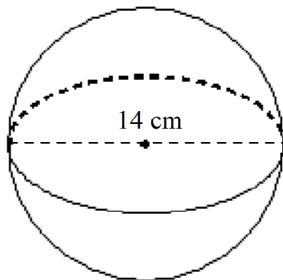
- 1 Are the two figures similar? If so, give the similarity ratio of the smaller figure to the larger figure.



Not drawn to scale

- 2 Concrete can be purchased by the cubic yard. How much will it cost to pour a slab 18 feet by 18 feet by 6 inches for a patio if the concrete costs \$44.00 per cubic yard?

- 3 Find the volume of the sphere shown. Give each answer rounded to the nearest cubic unit.

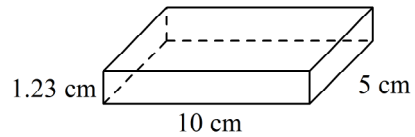


- 4 Find the surface area of the sphere with the given dimension. Leave your answer in terms of π .
diameter of 12 cm

- 5 What is the maximum volume of a pyramid that can fit inside a cube that has side 18 cm long?

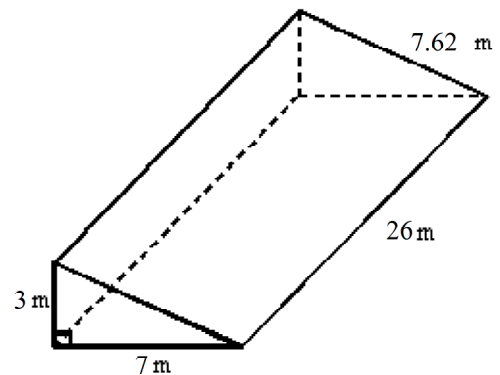
- 6 Find the surface area of a conical grain storage tank that has a height of 47 meters and a diameter of 14 meters. Round the answer to the nearest square meter.

- 7 A jewelry store buys small boxes in which to wrap items that they sell. The diagram below shows one of the boxes. Find the lateral area and the surface area of the box to the nearest whole number.



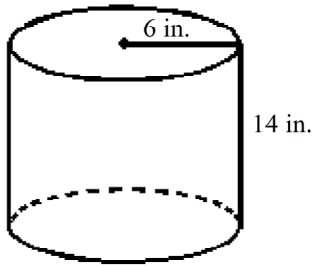
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- 8 Use formulas to find the lateral area and surface area of the given prism. Show your answer to the nearest whole number.



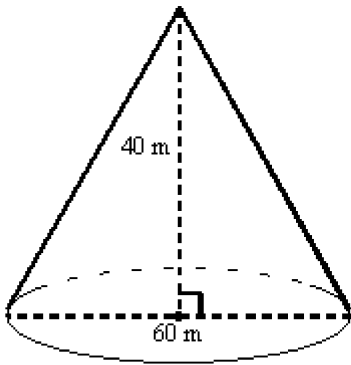
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- 9 Find the volume of the cylinder in terms of π .



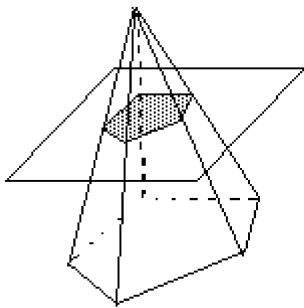
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- 10 Find the lateral area of the cone to the nearest whole number.

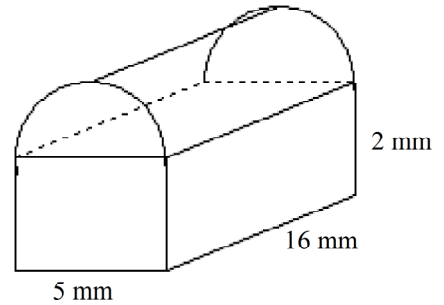


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- 11 Pierre built the model shown in the diagram below for a social studies project. He wants to be able to show the inside of his model, so he sliced the figure as shown. Describe the cross section he created.



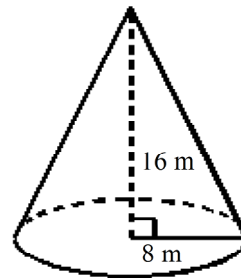
- 12 Find the volume of the composite space figure to the nearest whole number.



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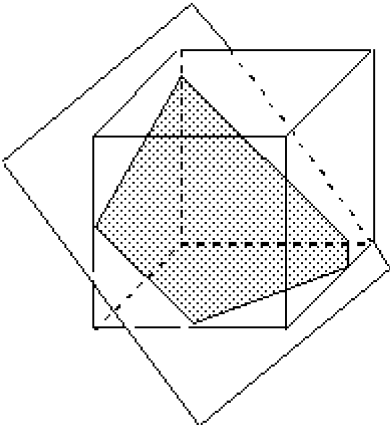
- 13 The lateral area of a cone is $146\pi \text{ cm}^2$. The radius is 33 cm. Find the slant height to the nearest tenth.

- 14 Find the slant height of the cone to the nearest whole number.

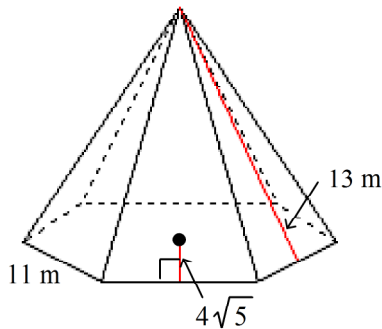


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- 15 Describe the cross section.



- 16 Find the surface area of the pyramid shown to the nearest whole number.



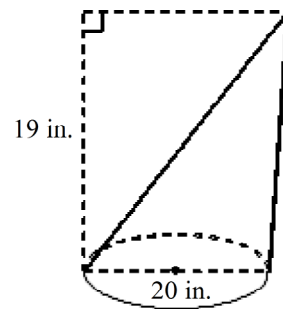
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- 17 The volume of a cylinder is $980\pi \text{ in.}^3$. The height of the cylinder is 20 in. What is the radius of the cylinder?
- 18 The radius of the base of a cylinder is 27 m and its height is 43 m. Find the surface area of the cylinder in terms of π .
- 19 Find the similarity ratio of a cube with volume 216 ft^3 to a cube with volume 3375 ft^3 .

- 20 The volumes of two similar solids are 729 m^3 and 125 m^3 . The surface area of the larger solid is 324 m^2 . What is the surface area of the smaller solid?

- 21 The volume of a sphere is $5000\pi \text{ m}^3$. What is the surface area of the sphere to the nearest square meter?

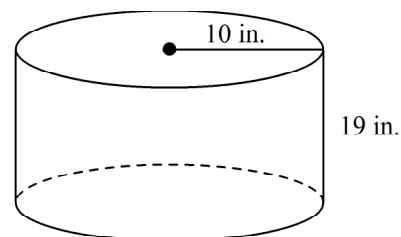
- 22 Find the volume of the cone shown as a decimal rounded to the nearest tenth.



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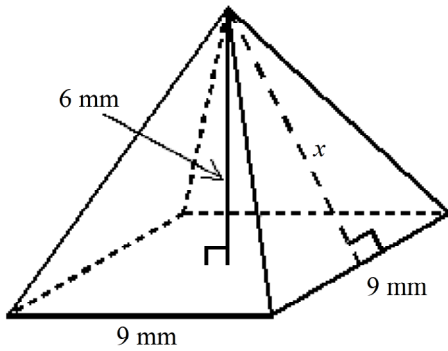
- 23 Two square pyramids have the same volume. For the first pyramid, the side length of the base is 20 in. and the height is 21 in. The second pyramid has a height of 84 in. What is the side length of the base of the second pyramid?

- 24 Find the surface area of the cylinder to the nearest whole number.



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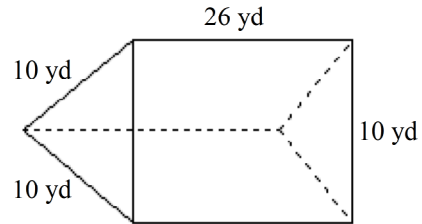
- 25 Find the slant height x of the pyramid shown to the nearest tenth.



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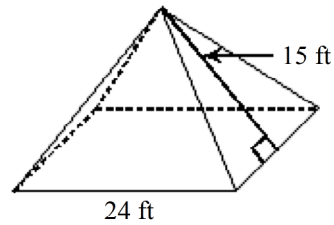
- 26 A balloon has a circumference of 28 in. Use the circumference to approximate the surface area of the balloon to the nearest square centimeter.

- 27 Find the volume of the given prism. Round to the nearest tenth if necessary.



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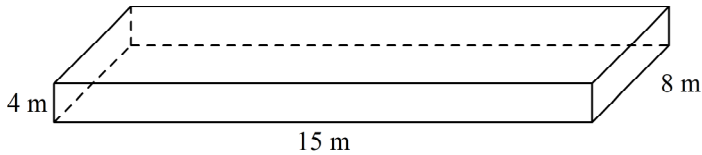
- 28 Find the volume of the square pyramid shown. Round to the nearest tenth as necessary.



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- 29 Find the surface area of the sphere with the given dimension. Leave your answer in terms of π .
radius of 30 m

- 30 Use formulas to find the lateral area and surface area of the given prism. Show your answer to the nearest whole number.



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**Geometry Chapter 11 Practice Test
Answer Section**

- 1 yes; 1: 4
- 2 \$264.00
- 3 $1,437 \text{ cm}^3$
- 4 $144\pi \text{ cm}^2$
- 5 1944 cm^3
- 6 1199 m^2
- 7 37 cm^2 ; 137 cm^2
- 8 458.12 m^2 ; 479 m^2
- 9 $504\pi \text{ in.}^3$
- 10 4712 m^2
- 11 pentagon
- 12 317 mm^3
- 13 4.4 cm
- 14 18 m
- 15 pentagon
- 16 724 m^2
- 17 7 in.
- 18 $3780\pi \text{ m}^2$
- 19 2 : 5
- 20 100 m^2
- 21 3033 m^2
- 22 1989.7 in.^3
- 23 10 in.
- 24 1822 in.^2
- 25 7.5 mm
- 26 250 in.^2
- 27 1125.8 yd^3
- 28 1728 ft^3
- 29 $3,600\pi \text{ m}^2$
- 30 184 m^2 ; 424 m^2