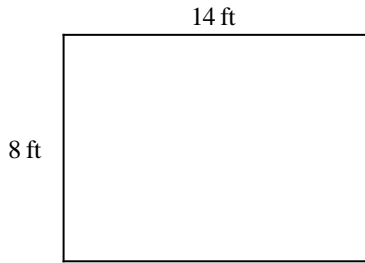


Pre-Algebra MP5 Exam Study Guide

Multiple Choice

Identify the letter of the choice that best completes the statement or answers the question.

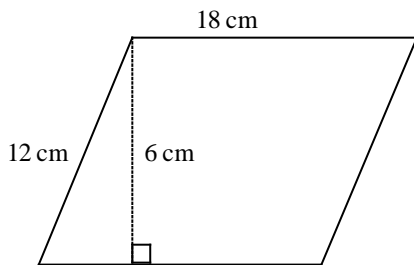
- ___ 1. Find the area of the rectangle.



- a. 44 ft^2 b. 64 ft^2 c. 196 ft^2 d. 112 ft^2

Find the area of the parallelogram.

- ___ 2.



- a. 60 cm^2 b. 216 cm^2 c. 108 cm^2 d. 72 cm^2

Find the area of the triangle.

- ___ 3.

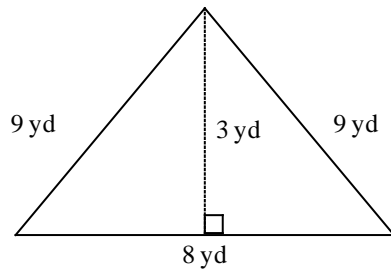
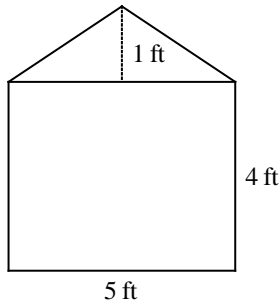


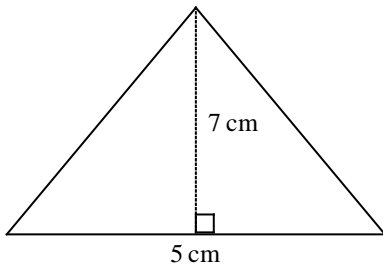
Diagram not to scale.

- a. 24 yd^2 b. 12 yd^2 c. 26 yd^2 d. 36 yd^2

- _____ 4. 'The diagram shows the dimensions of the front of a storage building. What is the area of the entire front of the building?



- a. 25 ft^2 b. 20 ft^2 c. 22.5 ft^2 d. 2.5 ft^2
- _____ 5. Uma is planning to decorate a blanket with this triangular shape. She plans to cut out 68 triangles with these dimensions. What will be the total area of the triangles?



- a. $2,380 \text{ cm}^2$ b. 35 cm^2 c. 17.5 cm^2 d. $1,190 \text{ cm}^2$

Find the area of the trapezoid.

- _____ 6.

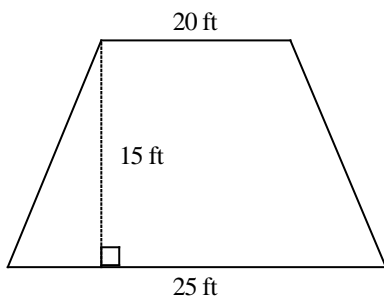
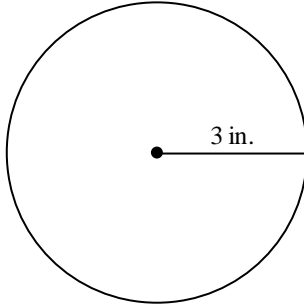


Diagram not to scale.

- a. 675 ft^2 b. 337.5 ft^2 c. 187.5 ft^2 d. 150 ft^2

Find the exact area of the circle.

___ 7.

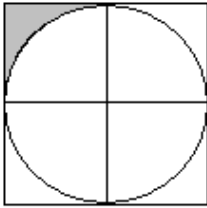


- a. $9\pi \text{ in.}^2$ b. $28\pi \text{ in.}^2$ c. $9\pi \text{ in.}^2$ d. $19\pi \text{ in.}^2$

___ 8. Find the area of a circle with radius 8.1 m to the nearest square unit.

- a. 66 m^2 b. 824 m^2 c. 206 m^2 d. 51 m^2

___ 9. The diagram shows a square of side 3 in. containing a circle of diameter 3 in. To the nearest hundredth, what is the area of the shaded part of the figure? Use 3.14 for π .



- a. 0.48 in.^2 b. 1.93 in.^2 c. 4.03 in.^2 d. 4.82 in.^2

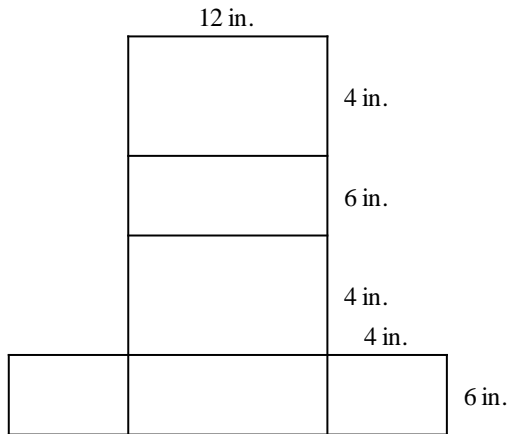
Write the most precise name for the space figure with the given properties.

___ 10. a lateral surface and two circular bases

- a. prism b. sphere c. cone d. cylinder

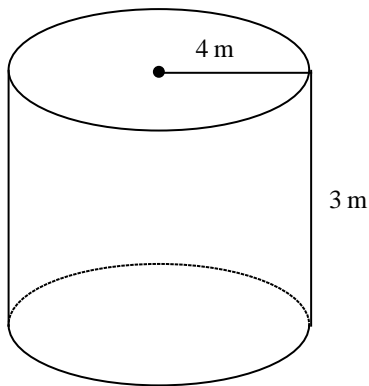
Find the surface area of the space figure represented by the net.

___ 11.



- a. 288 in.^2 b. 144 in.^2 c. 240 in.^2 d. 288 in.^2

___ 12. Find the surface area of the cylinder. Use a calculator. Round to the nearest tenth.



- a. 125.7 m^2 b. 138.2 m^2 c. 150.8 m^2 d. 175.9 m^2

___ 13. Find the surface area of a cylinder with radius 5.9 ft and height 4.4 ft. Use a calculator. Round to the nearest tenth.

- a. 300.3 ft^2 b. 481.2 ft^2 c. 381.8 ft^2 d. 272.5 ft^2

___ 14. Andy is building a model of a square pyramid for a class project. The side length of the square base is 11 inches and the slant height of the pyramid is 15 inches. What is the surface area of the model pyramid?

- a. 451 in.^2 b. 203.5 in.^2 c. 286 in.^2 d. 330 in.^2

___ 15. Find the surface area of the cone to the nearest square unit. Use $\pi = 3.14$.

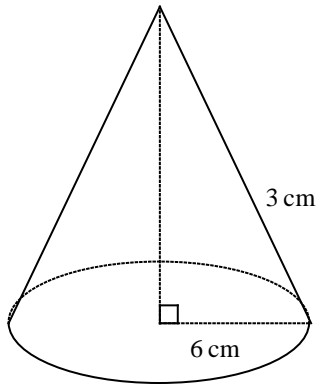
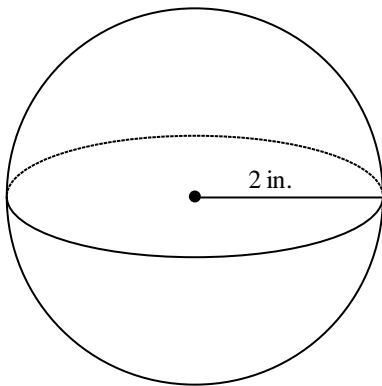


Diagram not to scale.

- a. 283 cm^2 b. 170 cm^2 c. 141 cm^2 d. 226 cm^2
- ___ 16. A conical tent made of canvas has a base that is 26 feet across and a slant height of 14 feet. To the nearest whole unit, what is the area of the canvas, including the floor? Use 3.14 for π .
- a. 817 ft^2 b. $3,267 \text{ ft}^2$ c. $1,103 \text{ ft}^2$ d. $1,674 \text{ ft}^2$

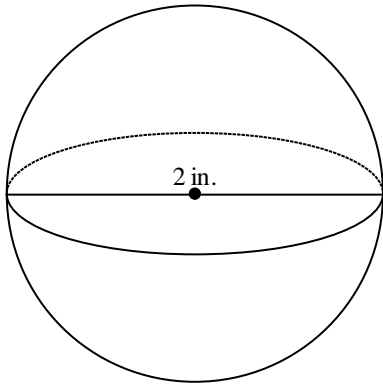
Find the surface area of the sphere to the nearest square unit. Use a calculator.

___ 17.



- a. 50 in.^2 b. 13 in.^2 c. 201 in.^2 d. 25 in.^2

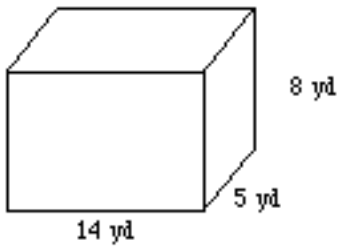
___ 18.



- a. 13 in.^2 b. 50 in.^2 c. 6 in.^2 d. 3 in.^2

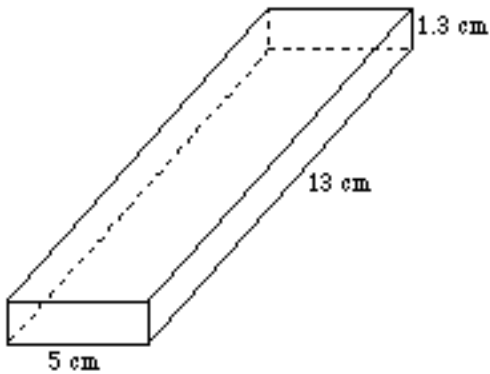
Find the volume of the rectangular prism.

___ 19.



- a. 108 yd^3 b. 540 yd^3 c. 560 yd^3 d. 444 yd^3

___ 20.



- a. 77.2 cm^3 b. 81.9 cm^3 c. 88.4 cm^3 d. 84.5 cm^3

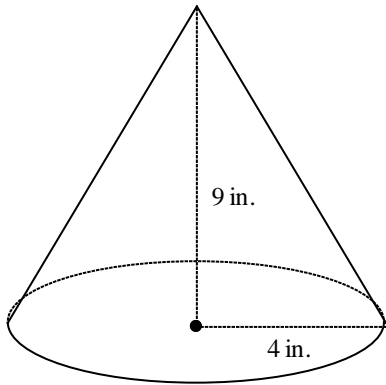
___ 21. Find the volume of a can of soup that has a height of 16 cm and a radius of 5 cm.

Use 3.14 for π .

- a. $1,256.0 \text{ cm}^3$ b. 251.2 cm^3 c. $4,019.2 \text{ cm}^3$ d. 502.4 cm^3

Find the volume of the cone to the nearest cubic unit. Use a calculator.

___ 22.



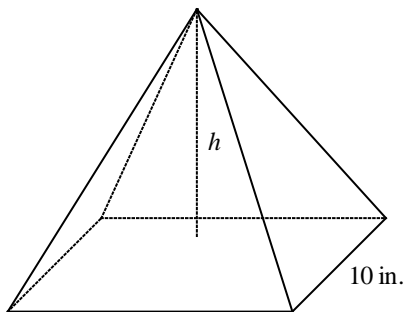
- a. 1,810 in.³ b. 151 in.³ c. 452 in.³ d. 276 in.³

___ 23. height 8 cm; radius 15 cm

- a. 1,885 cm³ b. 1,461 cm³ c. 5,655 cm³ d. 22,619 cm³

Find the missing dimension. Round to the nearest unit. Use 3.14 for π .

___ 24.



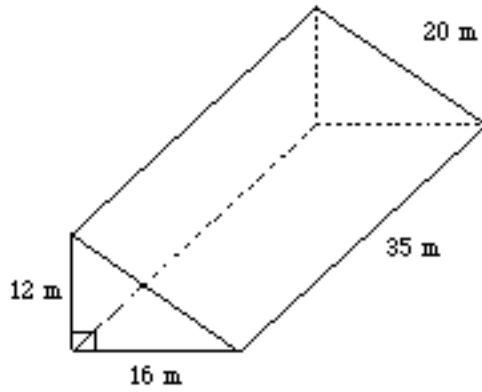
$V = 200$ in.

Height = ?

- a. 6.7 in. b. 12 in. c. 10 in. d. 6 in.

Find the surface area of the prism.

___ 25.



- a. $6,720 \text{ m}^2$ b. $1,662 \text{ m}^2$ c. $1,872 \text{ m}^2$ d. $3,360 \text{ m}^2$