

5.7 Geometry: Surface Area

In this worksheet, we will practice finding and using surface areas of 3D figures. Most of these problems require you to reference the attached formula sheet. If you would like to review the basics, links to video descriptions can be found at the end of this worksheet. Starred problems have video solutions.

- 1 Find the surface area of the following 3D figures. Round to the nearest tenth.

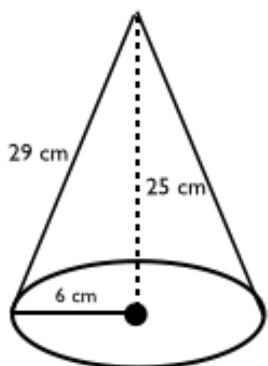


Figure 5.7.1

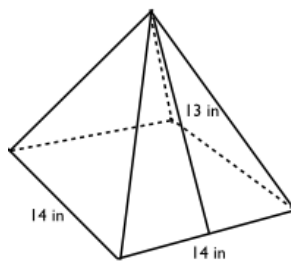


Figure 5.7.2

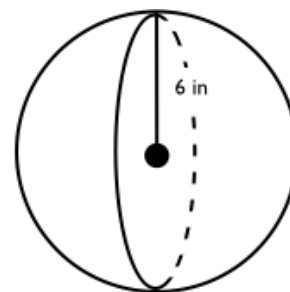


Figure 5.7.3

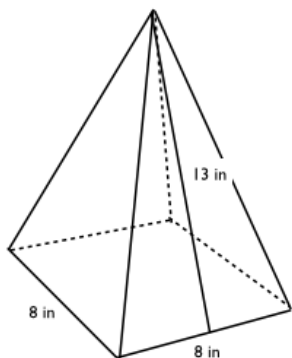


Figure 5.7.4

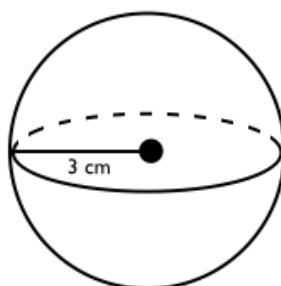


Figure 5.7.5

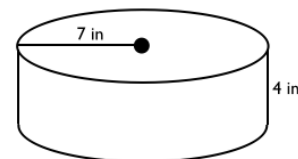


Figure 5.7.6

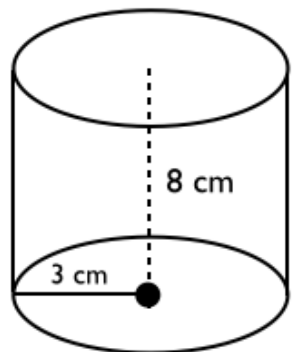


Figure 5.7.7

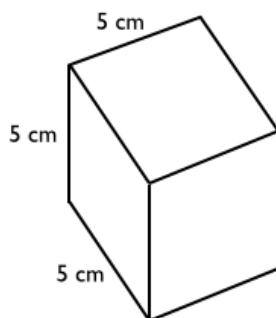


Figure 5.7.8

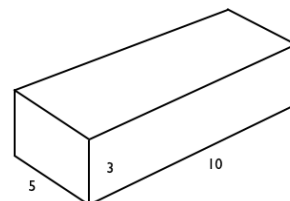


Figure 5.7.9



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2 Find the heights of the following 3D figures (Round to the nearest whole number):

- (a) A cube with a surface area of 54
- (b) A rectangular prism with a surface area of 188 and a base with side lengths of 4 and 6
- (c) A cylinder with a surface area of 72π and a base circle with radius 4

3 * If a pyramid has a surface area of 49 and the base of the pyramid has side lengths 4 and 3, what is the slant height? Round to nearest whole number.

- (a) 4
- (b) 5
- (c) 8
- (d) 10

Additional Resources:

- For review on finding the surface area of a cylinder: <http://youtu.be/gL3HxBQyeg0>
- Video solution for question 3 on this worksheet: <http://youtu.be/0DZK-KVwXHc>