NAME _____ DATE _____ PERIOD _____

12 Chapter 12 Mid-Chapter Test

SCORE _____

(Lessons 12-1 through 12-4)

Assessment

Part I ***Write the letter for the correct answer in the blank at the right of each question.***

1. A cylinder is standing on one of its bases. It is sliced by a plane horizontally. What is the shape of the cross section?

A triangle **C** circle

B square **D** rectangle

1. **C**

2. Choose the correct formula for the surface area of a cone.

F $S = Ph + 2B$ **H** $S = \frac{1}{2}P\ell + B$

G $S = \pi r\ell + \pi r^2$ **J** $S = \pi r\ell + 2\pi r$

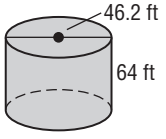
2. **G**

3. The surface area of a prism is 120 square centimeters and the area of each base is 32 square centimeters. Find the lateral area of the prism.

A 184 cm^2 **B** 152 cm^2 **C** 86 cm^2 **D** 56 cm^2

3. **D**

For Questions 4 and 5, refer to the solid figure. Round to the nearest tenth.



4. Find the lateral area.

F 9289.1 ft^2 **H** 10,965.4 ft^2

G 9434.2 ft^2 **J** 12,641.8 ft^2

4. **F**

5. Find the surface area.

A 9289.1 ft^2 **B** 9434.2 ft^2 **C** 10,965.4 ft^2 **D** 12,641.8 ft^2

5. **D**

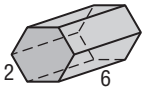
Part II

6. Draw the top view of this orthogonal drawing.

6.

For Questions 7 and 8, refer to the regular hexagonal prism.

7. Sketch the cross section from a vertical slice of the figure.



7.

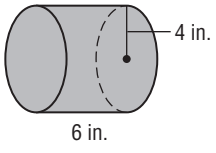
8. Find the surface area. Round to the nearest tenth.

8. **92.8 units^2**

9. A barrel in the shape of a right cylinder has a diameter of 18 inches and a height of 42 inches. Find the surface area of the barrel.

9. **2884 in^2**

10. Find the lateral area of the solid. Round to the nearest tenth.



10. **150.8 in^2**

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