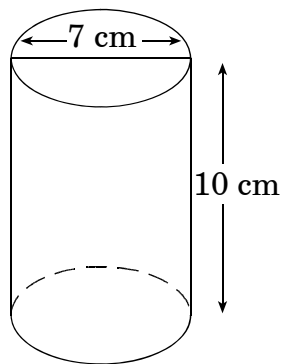


1. If the length of a rectangle is doubled, what will happen to its area?
- A The area will be the same.
- B The area will be twice as large.
- C The area will be three times as large.
- D The area will be four times as large.
2. The diagram below shows a company's current packaging of its plant food.

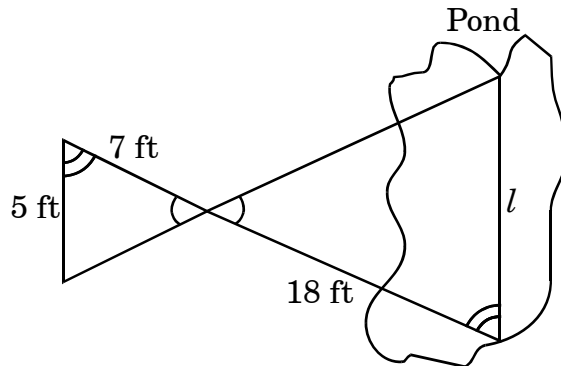


The company doubles the radius but keeps the height the same. What effect will this change have on the volume of the container?

- A The new volume will be one and a half times the original volume.
- B The new volume will be twice the original volume.
- C The new volume will be three times the original volume.
- D The new volume will be four times the original volume.

3. The side measurements of a cube are tripled. What is the ratio of the surface area of the original cube to the surface area of the larger one?
- A 1 : 3
- B 1 : 6
- C 1 : 9
- D 1 : 12
4. At noon, the shadow of a flagpole is 19 feet long. At the same time, the shadow of a 12-foot-high wall is 4 feet long. What is the height of the flagpole?
- A 48 feet
- B 57 feet
- C 62 feet
- D 75 feet

5. Jake wanted to measure the length, l , of the pond, so he drew this diagram of two similar triangles.



What is the **approximate** length, l , of the pond?

- A 25 feet
- B 19 feet
- C 18 feet
- D 13 feet

End of Goal 2 Sample Items

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Answers to EOG Grade 8 Math Sample Items

Goal 2

1. Objective 2.01

Determine the effect on perimeter, area or volume when one or more dimensions of two-and three-dimensional figures are changed.

Thinking Skill: Applying **Correct Answer:** B

2. Objective 2.01

Determine the effect on perimeter, area or volume when one or more dimensions of two-and three-dimensional figures are changed.

Thinking Skill: Analyzing **Correct Answer:** D

3. Objective 2.01

Determine the effect on perimeter, area or volume when one or more dimensions of two-and three-dimensional figures are changed.

Thinking Skill: Applying **Correct Answer:** C

4. Objective 2.02

Apply and use concepts of indirect measurement.

Thinking Skill: Applying **Correct Answer:** B

5. Objective 2.02

Apply and use concepts of indirect measurement.

Thinking Skill: Integrating **Correct Answer:** D