

1. A surveyor determined that the distance across a pond is  $\sqrt{2,255}$  feet. **Approximately**, what is this distance?
- A 22.6 ft  
B 25.0 ft  
C 47.5 ft  
D 1,127.5 ft
2. The area of a square is 800 square meters. The length of its side is between which two numbers?
- A 27 m and 28 m  
B 28 m and 29 m  
C 200 m and 201 m  
D 400 m and 401 m
3. Which of the following is the perimeter of a square whose side measures  $(3 + \sqrt{2})$  units?
- A 5.8 units  
B 8.7 units  
C  $(12 + \sqrt{8})$  units  
D  $(12 + 4\sqrt{2})$  units
4. The area of a triangle is 51 square meters. The height is one-half the length of the base. What is the **approximate** height of the triangle?
- A 7.0 meters  
B 7.1 meters  
C 14.0 meters  
D 14.3 meters
5. The drama club is selling tickets to a play for \$10 each. The cost to rent the theater and costumes is \$500. In addition, the printers are charging \$1 per ticket to print the tickets. How many tickets must the drama club sell to make a profit?
- A 54  
B 55  
C 56  
D 57

### End of Goal 1 Sample Items

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## Answers to EOG Grade 8 Math Sample Items

### Goal 1

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**1. Objective 1.01**

Develop number sense for the real numbers. A) Define and use irrational numbers. B) Compare and order. C) Use estimates of irrational numbers in appropriate situations.

**Thinking Skill:** Applying

**Correct Answer:** C

**2. Objective 1.01**

Develop number sense for the real numbers. A) Define and use irrational numbers. B) Compare and order. C) Use estimates of irrational numbers in appropriate situations.

**Thinking Skill:** Applying

**Correct Answer:** B

**3. Objective 1.01**

Develop number sense for the real numbers. A) Define and use irrational numbers. B) Compare and order. C) Use estimates of irrational numbers in appropriate situations.

**Thinking Skill:** Applying

**Correct Answer:** D

**4. Objective 1.02**

Develop flexibility in solving problems by selecting strategies and using mental computation, estimation, calculators or computers, and paper and pencil.

**Thinking Skill:** Evaluating

**Correct Answer:** B

**5. Objective 1.02**

Develop flexibility in solving problems by selecting strategies and using mental computation, estimation, calculators or computers, and paper and pencil.

**Thinking Skill:** Integrating

**Correct Answer:** C