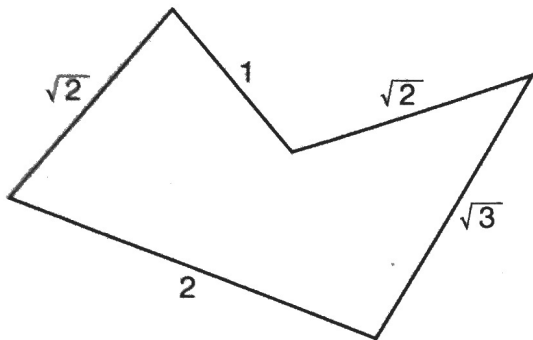


2. The side lengths of a polygon are shown in the figure below.



Which of the following expressions represents the perimeter of the figure?

- A.  $3 + 2\sqrt{3}$
- B.  $5 + \sqrt{3}$
- C.  $3 + \sqrt{7}$
- D.  $3 + 2\sqrt{2} + \sqrt{3}$

3. Given positive irrational numbers  $a$ ,  $b$ , and  $c$ , which of the following must also be irrational?

- A.  $abc$
- B.  $a + b + c$
- C.  $\frac{ab}{c}$
- D.  $a^2 + b^3 + c^4$

4. Which of the following does **not** correctly illustrate a property of radical expressions?

- A.  $\sqrt{19} \cdot \sqrt{19} = 19$
- B.  $\sqrt{7} \cdot \sqrt{11} = \sqrt{77}$
- C.  $\sqrt{10} + \sqrt{13} = \sqrt{23}$
- D.  $\frac{\sqrt{105}}{\sqrt{3}} = \sqrt{35}$

5. In a test, engineers determined that a bicycle can travel with a maximum speed of 20 feet per second. Which is closest to the maximum speed that the bicycle can travel in miles per hour? (1 mile = 5,280 feet)

- A. 0.004 mile per hour
- B. 0.23 mile per hour
- C. 13.6 miles per hour
- D. 105,600 miles per hour

5. Carlisle is going to a fabric supply store to buy materials for her crafts. She knows that she needs 12 feet of blue yarn and is wondering how much she will spend. Which unit will most likely be used to determine the cost of her yarn?

- A. dollars per minute
- B. feet of yarn per minute
- C. dollars per foot of yarn
- D. balls of yarn per day