

# Algebra I EOC Practice #23

**SPI 3102.4.3: Solve problems involving the distance between points or midpoint of a segment.**

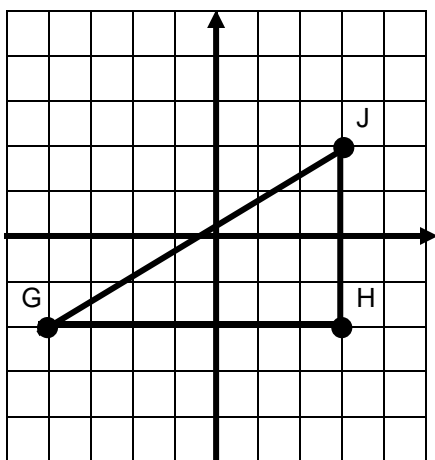
1. What is the length of a segment whose endpoints are  $(5, -8)$  and  $(9, 2)$ ?

A. 116  
 B.  $4\sqrt{29}$   
 C.  $29\sqrt{2}$   
 D.  $2\sqrt{29}$

2. What are the coordinates of the midpoint of a line segment with endpoints  $(8, 11)$  and  $(-12, 5)$ ?

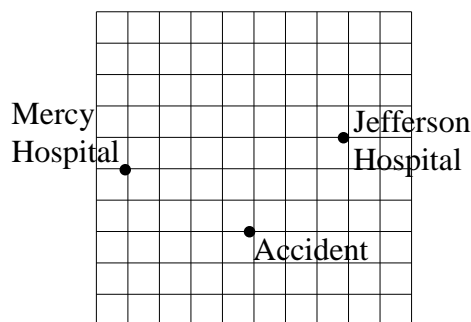
A.  $(10, 8)$   
 B.  $(-2, 8)$   
 C.  $(-4, 16)$   
 D.  $(-2, 16)$

3. Which value is closest to the perimeter of  $\triangle GHJ$ , in units?



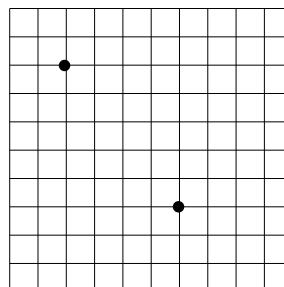
A. 8  
 B. 15  
 C. 19  
 D. 23

4. An EMS helicopter is stationed at Mercy Hospital, which is 4 miles west and 2 miles north of an automobile accident. Another EMS helicopter is stationed at Jefferson Hospital, which is 3 miles east and 3 miles north of the accident. Which statement below is correct?



- A. Mercy Hospital is 0.23 miles closer to the accident.  
 B. Mercy Hospital is 8.71 miles closer to the accident.  
 C. Jefferson Hospital is 0.23 miles closer to the accident.  
 D. Jefferson Hospital is 8.71 miles closer to the accident.

5. What is the distance between the two points on the graph below?



A. 3.6 units  
 B. 6.4 units  
 C. 7.1 units  
 D. 5.5 units