

**Directions:** Please choose the best answer choice for each of the following questions.

1. What is the distance between the points (1, 3) and (7, 11)?
- A.  $2\sqrt{7}$   
 B. 8  
 C. 10  
 D.  $2\sqrt{65}$

**Answer Choice Rationale**

- A. No rationale available  
 B. No rationale available  
 C. Correct  
 D. No rationale available

ItemID A2KC.1132608  
 Correct C  
 Standard(s) MA.9-12.MA.912.G.1.1

2. Sarah is plotting her house and her friend Angela's house on a grid. Sara's house is at (4, 7) and Angela's house is at (2, 3). How far apart, on the grid, are the houses?
- A.  $\sqrt{6}$   
 B. 4  
 C.  $2\sqrt{5}$   
 D.  $2\sqrt{34}$

**Answer Choice Rationale**

- A. No rationale available  
 B. No rationale available  
 C. Correct  
 D. No rationale available

ItemID A2KC.1143685  
 Correct C  
 Standard(s) MA.9-12.MA.912.G.1.1

3. Circle C has a diameter  $\overline{GH}$ . If G is at (-1, 5) and H is at (5, -2), what is the length of the radius of circle C?
- A.  $2\frac{1}{2}$   
 B.  $\frac{1}{2}\sqrt{85}$   
 C. 5  
 D.  $\sqrt{85}$

**Answer Choice Rationale**

- A. No rationale available  
 B. No rationale available  
 C. Correct  
 D. No rationale available

ItemID A2KC.1139318  
 Correct C  
 Standard(s) MA.9-12.MA.912.G.1.1

4. Reggie plotted the points R (7, -2) and S (-3, -6). If the point T is the midpoint of  $\overline{RS}$ , what are the coordinates of point T?
- A. (2, -4)  
 B. (2, -2)  
 C. (5, -4)  
 D. (5, -2)

**Answer Choice Rationale**

- A. Correct  
 B. No rationale available  
 C. No rationale available  
 D. No rationale available

ItemID A2KC.1143686  
 Correct A  
 Standard(s) MA.9-12.MA.912.G.1.1

5. A line passes through points M(-3, -2) and N(9, 3). What are the coordinates for the midpoint of  $\overline{MN}$ ?
- A. (3, 0.5)  
 B. (6, 2.5)  
 C. (6, 5)  
 D. (12, 5)

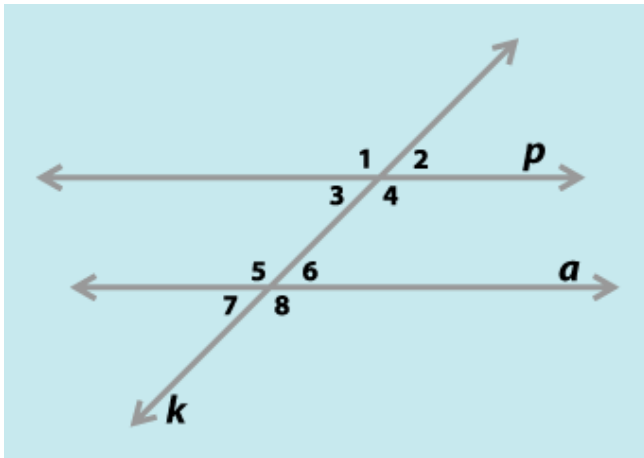
Go on to the next page »

**Answer Choice Rationale**

- A. Correct
- B. No rationale available
- C. No rationale available
- D. No rationale available

ItemID A2KC.1087493  
 Correct A  
 Standard(s) MA.9-12.MA.912.G.1.1

6. Lines  $p$  and  $q$  are parallel and are cut by transversal  $k$ . Which pair of angles are congruent?



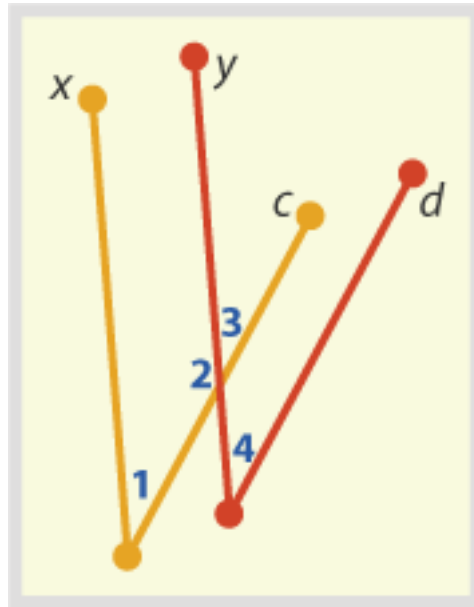
- A. Angles 2 & 7
- B. Angles 4 & 6
- C. Angles 1 & 7
- D. Angles 3 & 8

**Answer Choice Rationale**

- A. Correct
- B. No rationale available
- C. No rationale available
- D. No rationale available

ItemID saltsmad.2689  
 Correct A  
 Standard(s) MA.9-12.MA.912.G.1.3

7. If  $x$  is parallel to  $y$  and  $c$  is parallel to  $d$ , which of the following is **NOT** true?



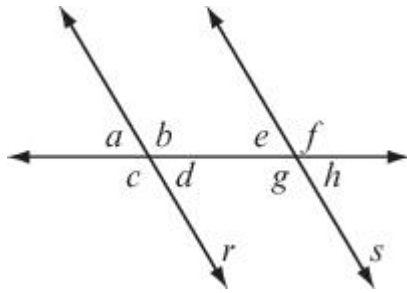
- A. Angles 3 and 4 are congruent
- B. Angles 3 and 4 are supplementary
- C. Angles 2 and 3 are supplementary
- D. Angles 1 and 4 are congruent

**Answer Choice Rationale**

- A. No rationale available
- B. Correct
- C. No rationale available
- D. No rationale available

ItemID saltsmad.2690  
 Correct B  
 Standard(s) MA.9-12.MA.912.G.1.3

8. In the diagram below,  $m\angle b = 114^\circ$  and  $m\angle h = 66^\circ$ . Irena found that  $m\angle f = 114^\circ$ .



Which of the following gives the justification for stating line  $r$  is parallel to line  $s$ ?

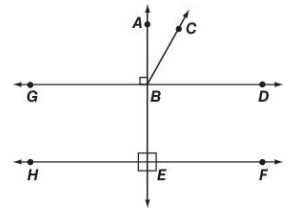
- A. If the alternate interior angles of two lines are intersected by a transversal are congruent, then the two lines are parallel.
- B. If the alternate exterior angles of two lines intersected by a transversal are congruent, then the two lines are parallel.
- C. If the corresponding angles of two lines intersected by a transversal are congruent, then the two lines are parallel.
- D. If the vertical lines of two intersecting lines are congruent, then the lines are parallel.

**Answer Choice Rationale**

- A. No rationale available
- B. No rationale available
- C. Correct
- D. No rationale available

ItemID A2KC.1132296  
 Correct C  
 Standard(s) MA.9-12.MA.912.G.1.3

9. Using the diagram below, which of the following statements are true?



- I.  $\overline{AE}$  is parallel to  $\overline{HF}$
- II.  $\angle ABC$  and  $\angle CBD$  share a vertex
- III.  $\angle ABD = \angle BEF$
- IV.  $\angle ABD$  is an acute angle
- V.  $\overline{AE}$  intersects  $\overline{GD}$

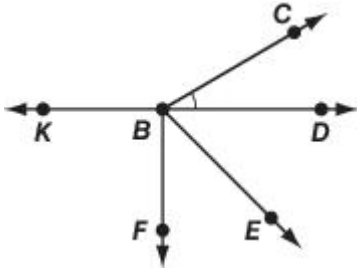
- A. I, IV, V
- B. III, IV
- C. II, III, V
- D. II, IV

**Answer Choice Rationale**

- A. No rationale available
- B. No rationale available
- C. Correct
- D. No rationale available

ItemID A2KC.1107318  
 Correct C  
 Standard(s) MA.9-12.MA.912.G.1.3

10. If  $\angle CBD$  is  $45^\circ$ , how many degrees is  $\angle KBC$ ?



- A.  $45^\circ$
- B.  $90^\circ$
- C.  $135^\circ$
- D.  $180^\circ$

**Answer Choice Rationale**

- A. No rationale available
- B. No rationale available
- C. Correct
- D. No rationale available

ItemID A2KC.1106681  
 Correct C  
 Standard(s) MA.9-12.MA.912.G.1.3