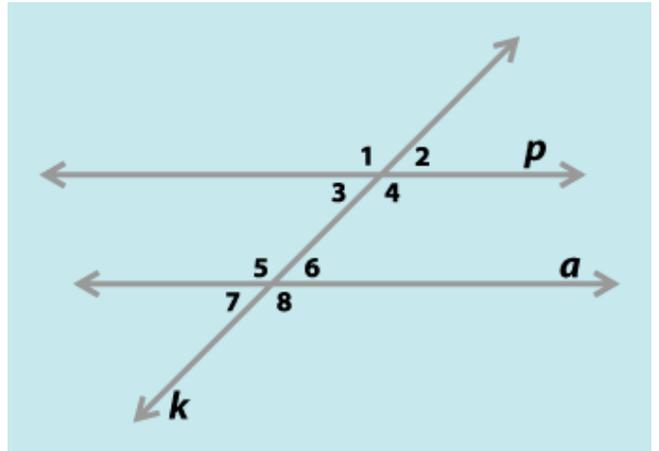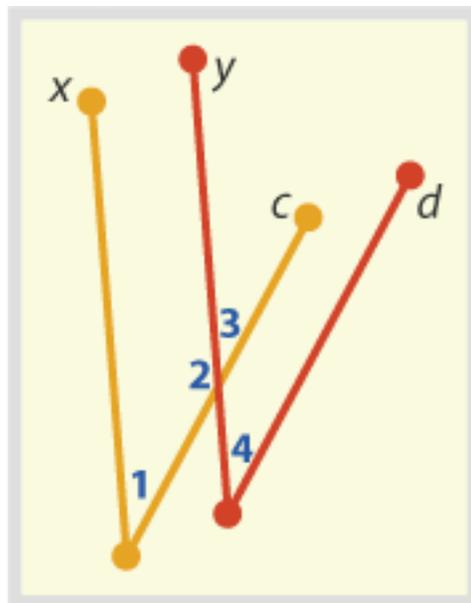> **Directions:** Please choose the best answer choice for each of the following questions.

1. What is the distance between the points (1, 3) and (7, 11)?

    A. $2\sqrt{7}$

    B. 8

    C. 10

    D. $2\sqrt{65}$

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. $2\sqrt{34}$

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. $2\dfrac{1}{2}$

    B. $\dfrac{1}{2}\sqrt{85}$

    C. 5

    D. $\sqrt{85}$

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. $(5,-2)$

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)

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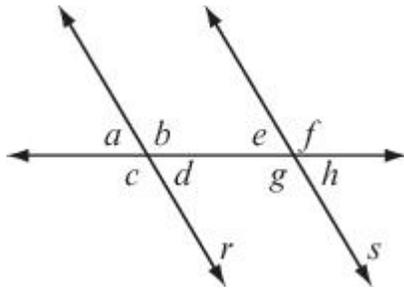

    A. Angles 2 & 7

    B. Angles 4 & 6

    C. Angles 1 & 7

    D. Angles 3 & 8

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
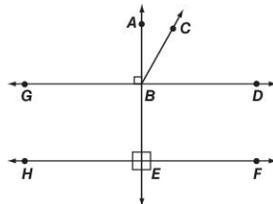
    D. Angles 1 and 4 are congruent

Go on to the next page »

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

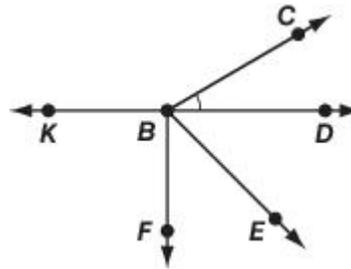Which of the following gives the justification for stating line r is parallel to line s?

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.

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

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

A. 45°

B. 90°

C. 135°

D. 180°

Stop! You have finished this exam.