Name: _____ Date: _____

TEST PREP 10

Perpendicular and Parallel Line Segments

30

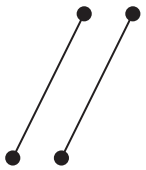
Suggested Time: 30 min

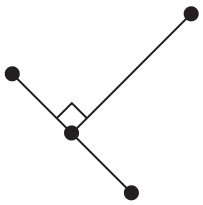
Multiple Choice

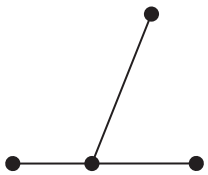
(5 × 2 points = 10 points)

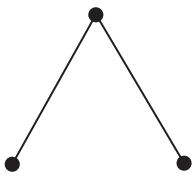
Fill in the circle next to the correct answer.

1. Which of the following shows a pair of perpendicular lines?

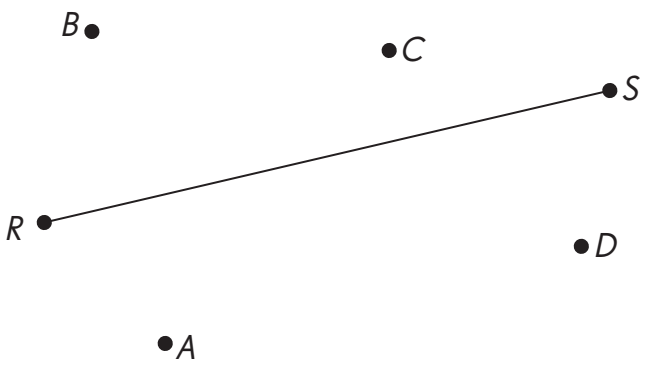
Ⓐ 

Ⓑ 

Ⓒ 

Ⓓ 

2. Which pair of points must be joined to draw a line segment that is parallel to $\overline{RS}$?



Ⓐ *A* and *B* Ⓑ *B* and *C* Ⓒ *A* and *C* Ⓓ *A* and *D*

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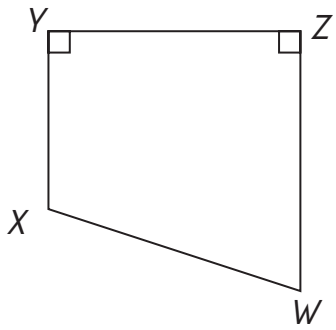
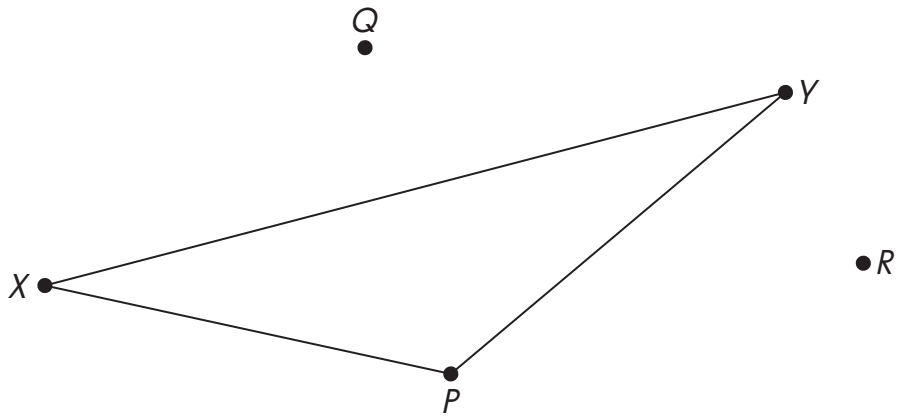
3. Which of these line segments is a horizontal line segment?



(A) $\overline{WX}$ (B) $\overline{YZ}$ (C) $\overline{WZ}$ (D) $\overline{XY}$

4. Which points must be joined to draw a line segment perpendicular to $\overline{XY}$ through point *P*?



(A) *P* and *Q* (B) *P* and *R* (C) *P* and *Y* (D) *P* and *X*

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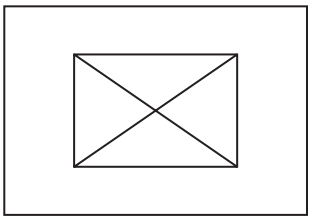
5. How many vertical line segments are there in the diagram?

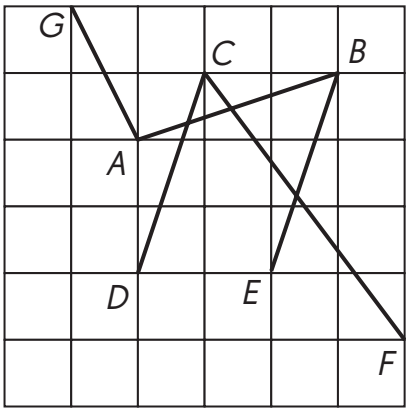


(A) 10 (B) 8 (C) 4 (D) 2

Short Answer

(3 × 2 points = 6 points, Question 9 = 4 points)

6. Which pair of line segments is parallel?



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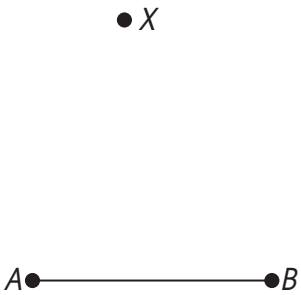
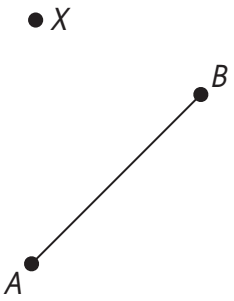
7. Use a protractor or a drawing triangle to draw a line segment perpendicular to $\overline{AB}$ through point X.

a.



b.



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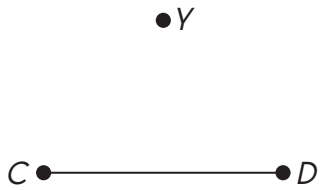
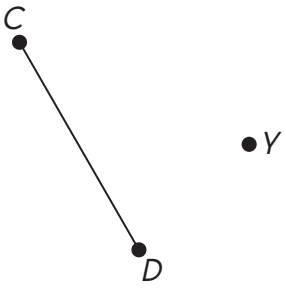
8. Use a drawing triangle and a straightedge to draw a line segment parallel to $\overline{CD}$ through point *Y*.

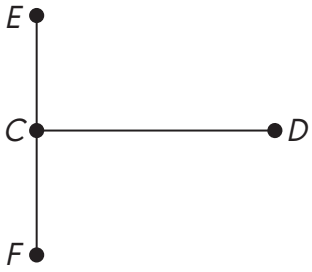
a.



b.



9. $\overline{CD}$ is a horizontal line segment and $\overline{EF}$ is a vertical line segment. Draw a line segment parallel to $\overline{CD}$ through point *E*.



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Extended Response

(2 × 5 points = 10 points)

Use a protractor or a drawing triangle and a straightedge.

10. **a.** Draw a line segment perpendicular to $\overline{AB}$ passing through point A. Name one end point of this line segment D.

b. Draw a line segment parallel to $\overline{AB}$ that passes through point D and intersects $\overline{BC}$.

c. What do you notice about the two line segments you have drawn?

_____

d. What is the name of the shape formed?

_____

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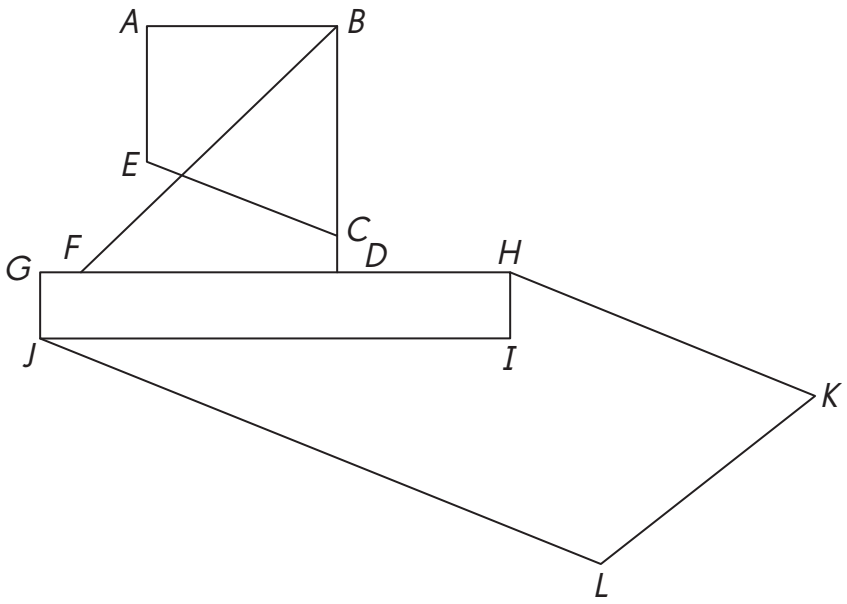
11. In the diagram, identify a pair of parallel line segments and a pair of perpendicular line segments.



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