

Name: _____

1.1 Basics of Geometry — use the top diagram.

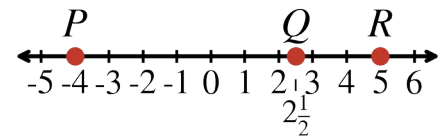
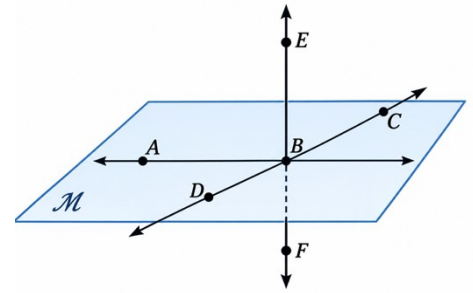
1. Name two lines.
2. Name two rays with endpoint B.
3. Name three collinear points.

1.2 Measuring & Constructing Segments — use the number line.

4. Find PQ and QR.
5. K is between J and L . $JK = 15$ and $KL = 9$. Find JL .
6. S is between R and T . $RS = 3x + 1$, $ST = x - 3$, $RT = 42$. Find RS .

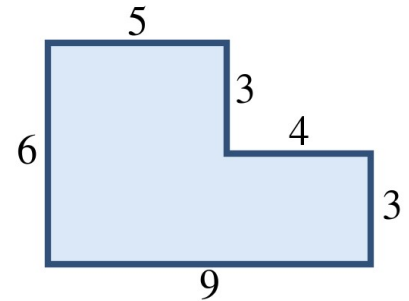
1.3 Midpoint & Distance

7. Find the midpoint of $\overline{AB}$ with $A(-8, 5)$ and $B(2, -3)$.
8. $M(-1, 2)$ is the midpoint of $\overline{AB}$, and A has coordinates $(4, 6)$. Find B .
9. Find the distance between $(-2, 3)$ and $(4, -5)$.



1.4 Perimeter & Area

- 10.** What do you call a polygon with 7 sides? Is a polygon with a "dent" convex or concave?
- 11.** A rectangle has vertices $(-5, 2)$, $(3, 2)$, $(3, -3)$, and $(-5, -3)$. Find its perimeter and area.
- 12.** Find the perimeter and area of the shaded figure.



1.5 Measuring & Constructing Angles

- 13.** $m\angle ABD = 27^\circ$ and $m\angle DBC = 44^\circ$, with D in the interior of $\angle ABC$. Find $m\angle ABC$.
- 14.** $\angle XYZ$ is a straight angle divided into angles measuring $(9x + 11)^\circ$ and $(5x + 1)^\circ$. Find both measures.
- 15.** Ray WY bisects $\angle XWZ$. $m\angle XWY = (6x + 2)^\circ$ and $m\angle YWZ = (8x - 12)^\circ$. Find $m\angle XWZ$.

1.6 Describing Pairs of Angles — use the bottom diagram for Exercise 7.

- 16.** In the diagram, find $m\angle 1$, $m\angle 2$, and $m\angle 3$.
- 17.** Find the complement and the supplement of a 71° angle.
- 18.** Two angles that form a linear pair measure $(5x + 12)^\circ$ and $(3x + 8)^\circ$. Find both measures.

