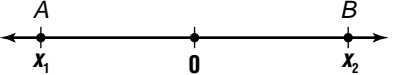
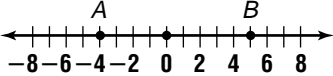
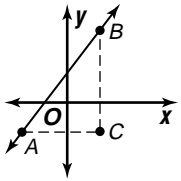
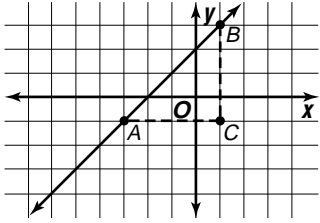
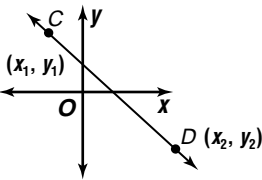
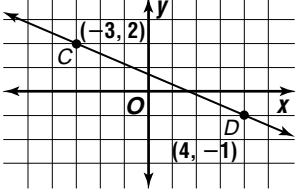


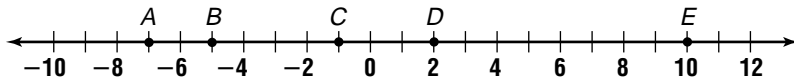
Study Guide

Measuring Segments

To find the distance between two points, there are two situations to consider.

Distance on a Number Line	Distance in the Coordinate Plane	
 $AB = x_2 - x_1 $ <p>Example: Find AB on the number line shown below.</p>  $\begin{aligned} AB &= 5 - (-4) \\ &= 9 \\ &= 9 \end{aligned}$	 <p>Pythagorean Theorem: $(AB)^2 = (AC)^2 + (BC)^2$</p> <p>Example: Find the distance from $A(-3, -1)$ to $B(1, 2)$ using the Pythagorean Theorem.</p>  $\begin{aligned} AC &= 1 - (-3) \text{ or } 4 \\ BC &= 2 - (-1) \text{ or } 3 \\ (AB)^2 &= 4^2 + 3^2 \\ &= 16 + 9 \text{ or } 25 \\ AB &= \sqrt{25} \\ &= 5 \end{aligned}$	 <p>Distance Formula: $CD = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$</p> <p>Example: Find the distance from $C(-3, 2)$ to $D(4, -1)$ using the distance formula.</p>  $\begin{aligned} CD &= \sqrt{(-3 - 4)^2 + [2 - (-1)]^2} \\ &= \sqrt{(-7)^2 + 3^2} \\ &= \sqrt{49 + 9} \\ &= \sqrt{58} \\ &\approx 7.62 \end{aligned}$

Refer to the number line below to find each measure.



1. AC
2. BC
3. CD
4. AE
5. AB
6. DE
7. BE
8. CE

Refer to the coordinate plane at the right to find each measure. Round your measures to the nearest hundredth.

9. RS
10. RT
11. RV
12. VS
13. VT
14. ST

