
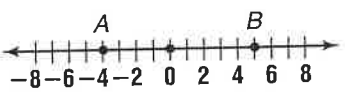
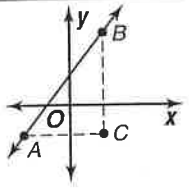
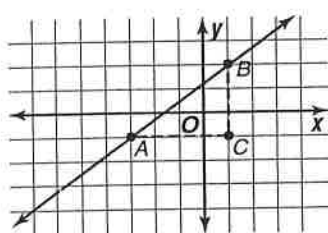
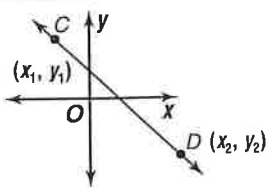
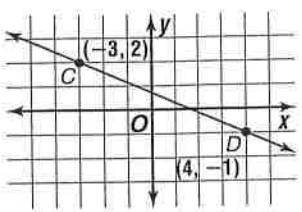


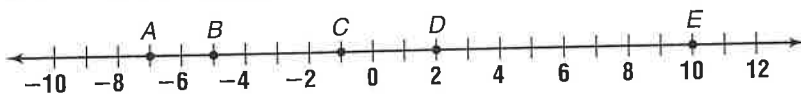
# Study Guide

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

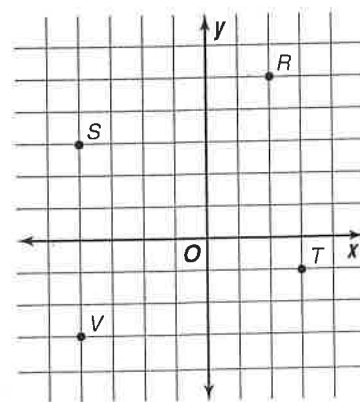
Refer to the number line below to find each measure.



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.  $ST$



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

7.  $AB$

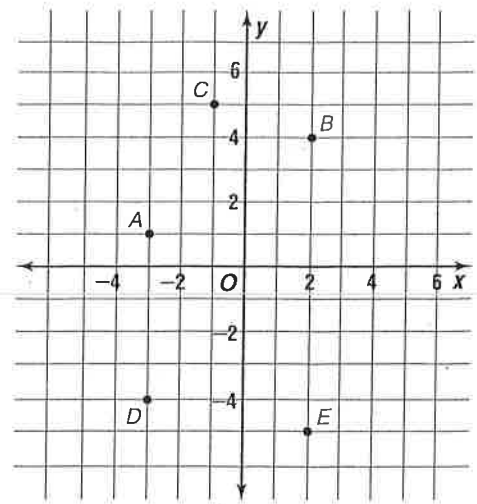
8.  $BD$

9.  $AE$

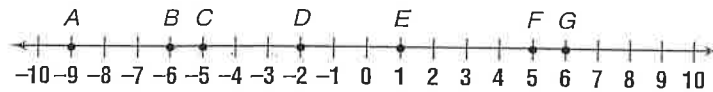
10.  $CE$

11.  $AD$

12.  $BE$



Refer to the number line below to find each measure.



16.  $AE$

17.  $BD$

18.  $EC$

19.  $EG$

20.  $FC$

21.  $CA$

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

26.  $BG$

27.  $HC$

28.  $GH$

29.  $EG$

30.  $FJ$

31.  $JC$

Write a mathematical sentence to compare each pair of measures.

32.  $GB$  and  $GF$

33.  $FJ$  and  $JC$

34.  $AC$  and  $AD$

