

Midpoint and Distance

Objectives:

- ❖ Review the midpoint formula and how to use it
 - Find the midpoint between two points
 - Find the endpoint given an endpoint and a midpoint
- ❖ Use the distance formula to calculate the distance between two points

What is a midpoint?

What is the average of test scores 40 and 80?

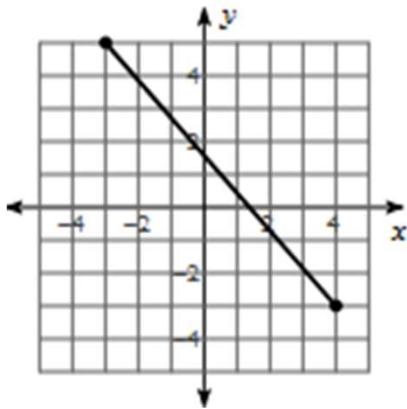
How did you find it?

How would we find the midpoint between two points $(-5,2)$ and $(3,2)$?

Find the midpoint between each pair of points.

1. $(8, -7), (-8, -3)$

2.



Find the other endpoint given the midpoint and an endpoint.

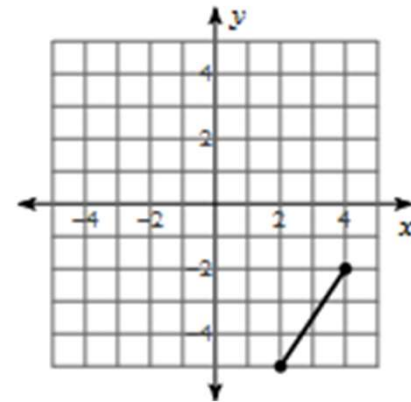
1. Endpoint: $(8,7)$, midpoint: $(-5,10)$

2. Endpoint: $(-2,5)$, midpoint: $(-10, -8)$

Distance

The distance formula:

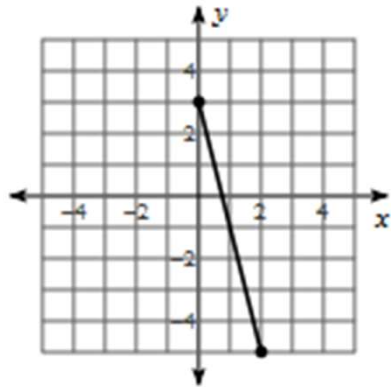
Where does it come from?



Find the distance between each pair of points. Write answers as simplified radicals.

1. $(-3, 5), (6, 2)$

2.



Find the distance between each pair of points. Round to the nearest tenth, if necessary use your calculator.

1. $(4, 5), (8, 0)$

2. $(7, -8), (6, 0)$

Can you....

find the midpoint between two points?

find the endpoint given the midpoint and the other endpoint?

find the distance between two points?

Assignment

Packet 6.0 and XL 6.0

Due at the beginning of class next time

Don't forget to show all your work!