

Starter

Find the distance between the 2 points to the nearest tenth.

1. $(3, 4)$ and $(9, 7)$

2. $(10, 3)$ and $(-4, 9)$

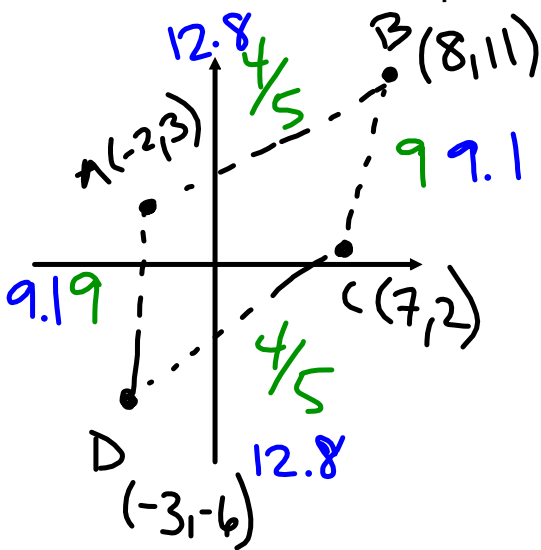
3. Use the distance formula to show that Point M $(-2, -3)$ is equidistant from points A $(3, 9)$ and B $(-7, -15)$

Pull

Example

A quadrilateral has vertices A(-2, 3), B(8, 11), C(7, 2), and D(-3, -6).

Prove that ABCD is a parallelogram.



① opp sides \parallel (slope)

or

② opp sides \cong (dist)

or

③ 1 pair is \cong + \parallel (dist) (slope)

Pull

Trapezoid: 1 pair \parallel , 1 pair not

Square: All sides \cong

and

1 set of adj. \perp sides

(opp. reciprocal slopes)

Group Work

You need the following:

- 2 - 3 people
- Problem (slip of paper)
- Grid Sheet
- pencil

Directions

- 1) Sketch the quadrilateral.
- 2) Decide what you need to do using slope and/or distance formula.
- 3) Show your work!!
- 4) State conclusion.
- 5) Trade problems with another group and evaluate their work.
- 6) Repeat!

EXIT SLIP

- 1) How do you prove a figure is a parallelogram?
- 2) How do you prove a figure is a rectangle?
- 3) How do you prove a figure is a rhombus?

