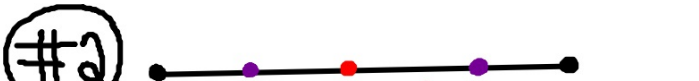
Practice 3.1: Finding Midpoints and Endpoints of Line Segments

#2



$$\frac{34+14}{2}, \frac{2-7}{2}$$

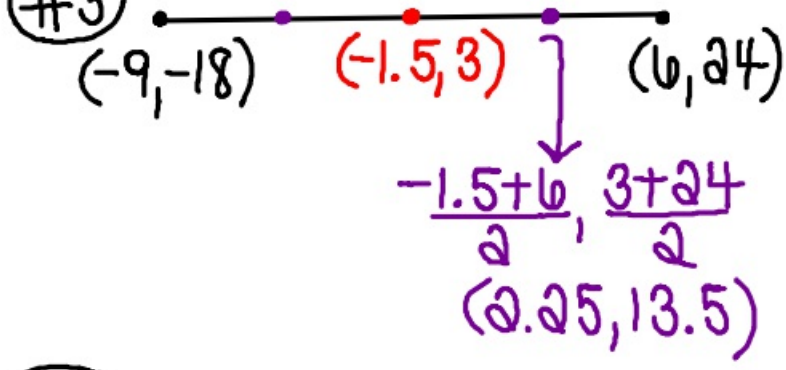
$$\frac{48}{2}, \frac{-5}{2}$$

$$(24, -2.5)$$

$$\frac{x_1+x_2}{2}, \frac{y_1+y_2}{2}$$

$$\frac{34+(-6)}{2}, \frac{2-16}{2}$$

#3



$$\frac{-1.5+6}{2}, \frac{3+24}{2}$$

$$(2.25, 13.5)$$

#6 $d=\sqrt{(x_2-x_1)^2+(y_2-y_1)^2}$ (8,20)(18,4)

$d=\sqrt{(18-8)^2+(4-20)^2}$

$d=\sqrt{(10)^2+(-16)^2}$

$d=\sqrt{100+256}$

$d=\sqrt{356}$

$d=\sqrt{4\cdot 89}$

$d=\sqrt{4}\cdot\sqrt{89}$

$d=2\sqrt{89}\approx 18.9$

$\sqrt{125}$

1	125
5	25

$\sqrt{25\cdot 5}$

$\sqrt{25}\cdot\sqrt{5}$

$5\sqrt{5}$

What do we know about these lines?

1.) Fold your graph paper hamburger style.

2.) On the front, label -
The top half: Set One.
The bottome half: Set Two.

3.) On the back, label -
The top half: Set Three.

4.) Use a pencil to graph each pair of lines before using marker to trace the lines.

Walkthrough!

Set One

Pair One:

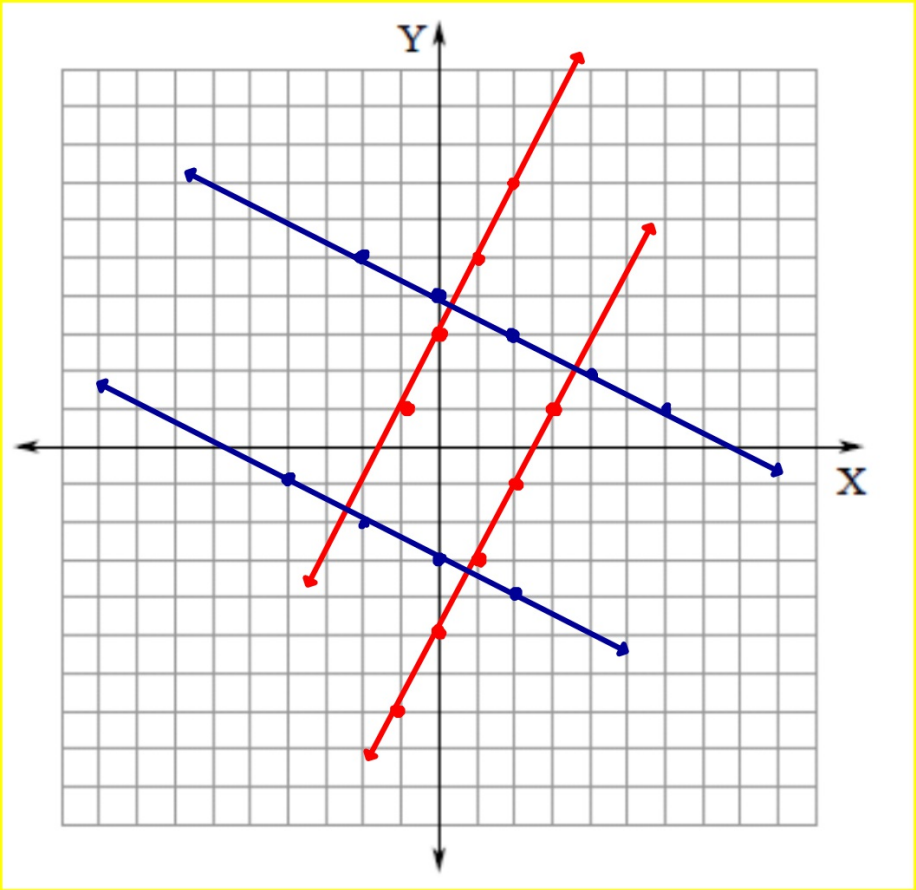
$y = 2x + 3$

$y = 2x - 5$

Pair Two:

$y = \frac{-x}{2} + 4$

$y = \frac{-x}{2} - 3$



What is true about these lines?

- Graph each set of lines on one coordinate plane. (5 points per line)
- Each pair should be graphed in the same color and labeled with their line equations.
- Remember you are looking for what patterns you see with each pair of lines.
- Write down what you discover about the lines at the bottom of the sheet.

When you finish,

1.) Complete the Slopes Parallel and Perpendicula
Blendspace.

2.) Complete Practice Problems #1-10.

3.) Visit deltamath.com and complete the followin
assignments:
Parallel and Perpendicular Lines
Midpoint and Distance