

The background of the slide is a dark blue sky with a bright, jagged lightning bolt striking down from the top center. The lightning bolt is a vibrant yellow and white, creating a strong contrast against the dark blue background. The overall mood is dramatic and intense.

Midterm Review

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Evaluate when

$$y = -2 \text{ and } x = -1.$$

$$x^3 - y - 4$$

Is 8 a solution?

$$5a + 1 < 41$$

Why / why not?

Function? Yes or No

x	y
1	7
2	7
3	7

x	y
5	1
5	2
5	10

x	y
-8	1
5	-9
3	17

Simplify:

$$\sqrt{32}$$

$$\sqrt[3]{50}$$

$$3\sqrt{8} + 2\sqrt{18}$$

$$5\sqrt{7}$$

Find missing side of a right triangle.

$$a=3 \quad b=4 \quad c= \underline{\quad}$$

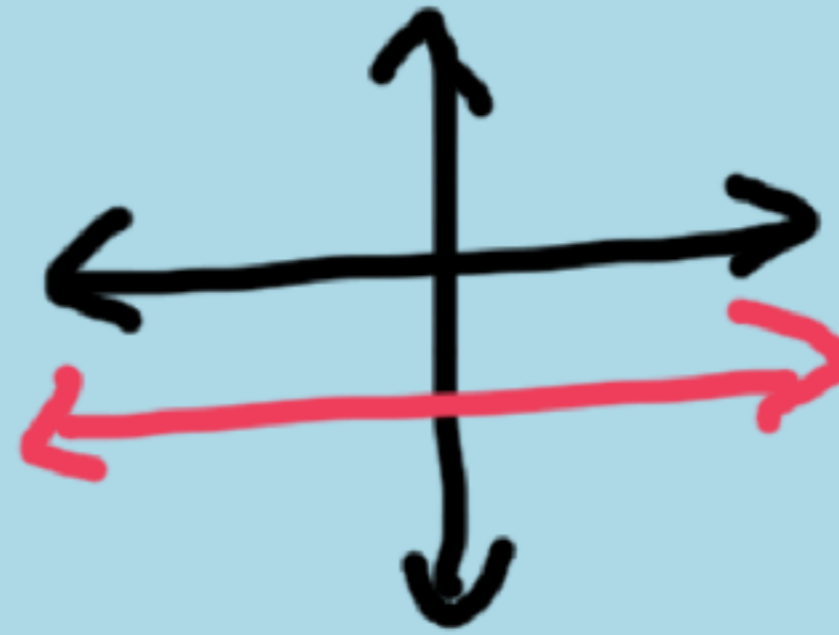
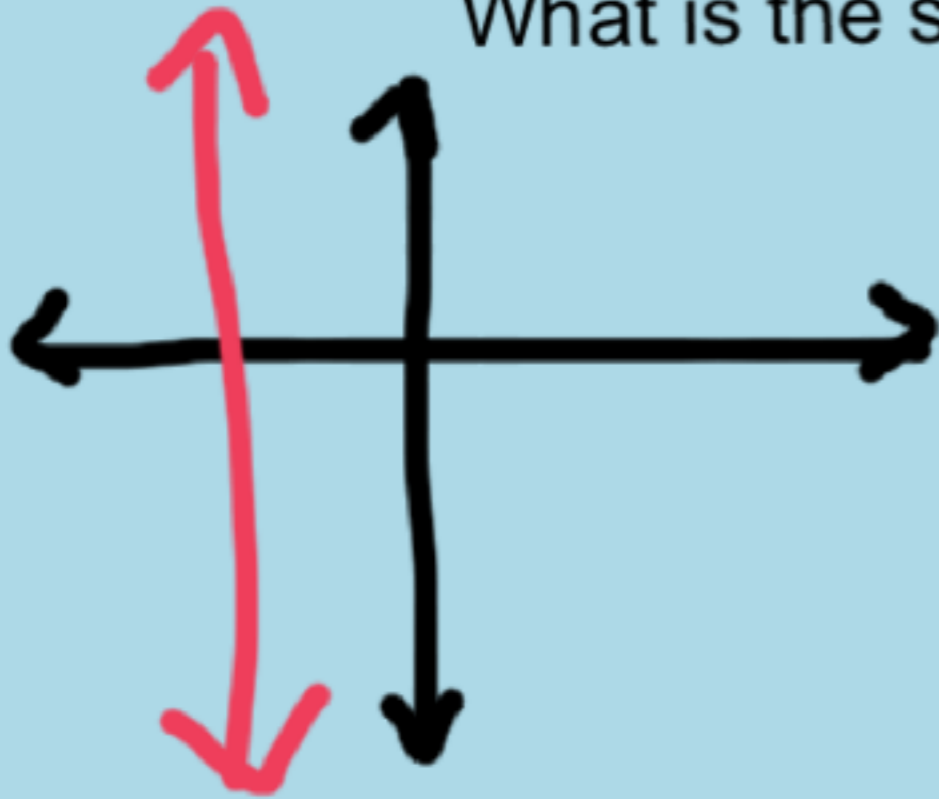
$$a=5 \quad b= \underline{\quad} \quad c=13$$

Right triangle? yes or no?

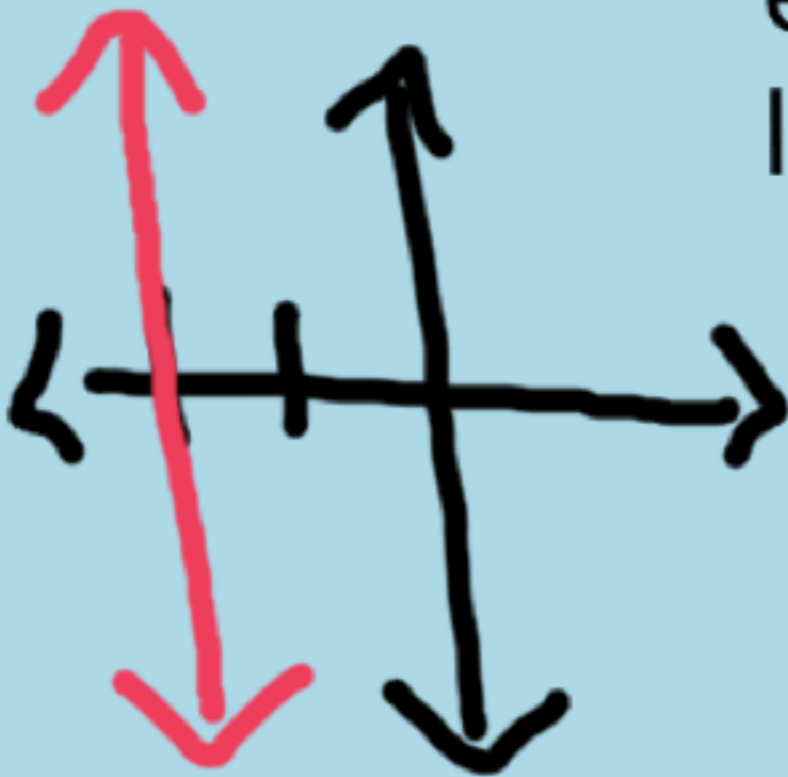
6, 10, 8

9, 10, 15

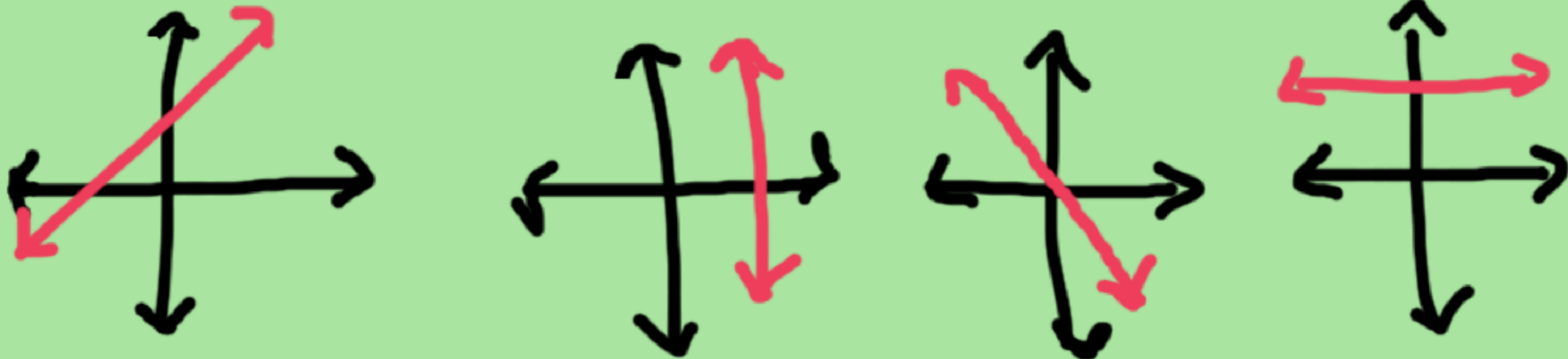
What is the slope of each of the following lines? —



What is the equation of each of the following lines?



Which of the following graphs illustrate direct variation?



Which of the following equations represent direct variation?

$$2x + 6y = 1$$

$$3y = 4x$$

$$y = 7x$$

$$x = 7y$$

Simplify

1. $10 - 24 \div 4 \cdot 2 + 2$

2. $3\frac{1}{6} - \left(2\frac{1}{4} \cdot \frac{4}{9}\right)$

3. $\frac{8x + 12}{2}$

4. $\frac{-30x + 40}{-5}$

- 1- 14 is 7% of what number?
- 2- What is 40% of 80?
- 3- 6 is what percent of 24?
- 4- What is 110% of 60?

$$4x + 2y + 8 = 0$$

Write the above equation in each of the following forms.

Function form.

Slope-intercept form.

Standard form.

Answers

Page

1 -3

2 No

3 Yes. No. Yes.

4 $\frac{4\sqrt{2}}{12\sqrt{2}} \mid \frac{15\sqrt{2}}{\text{is simplified}}$

5 C=5
B=12

Yes
Not

6 Undefined. Zero
X=-2. Y=-2

7 No. No. Yes. No

No. Yes

8 1. 0
2. $2 \frac{1}{6}$
3. $4x+6$ 4. $6x-8$

9 1. 200
2. 32
3. 25%
4. 66

10 $Y=-2x-4$. $Y=-2x-4$. $4x+2y=-8$

