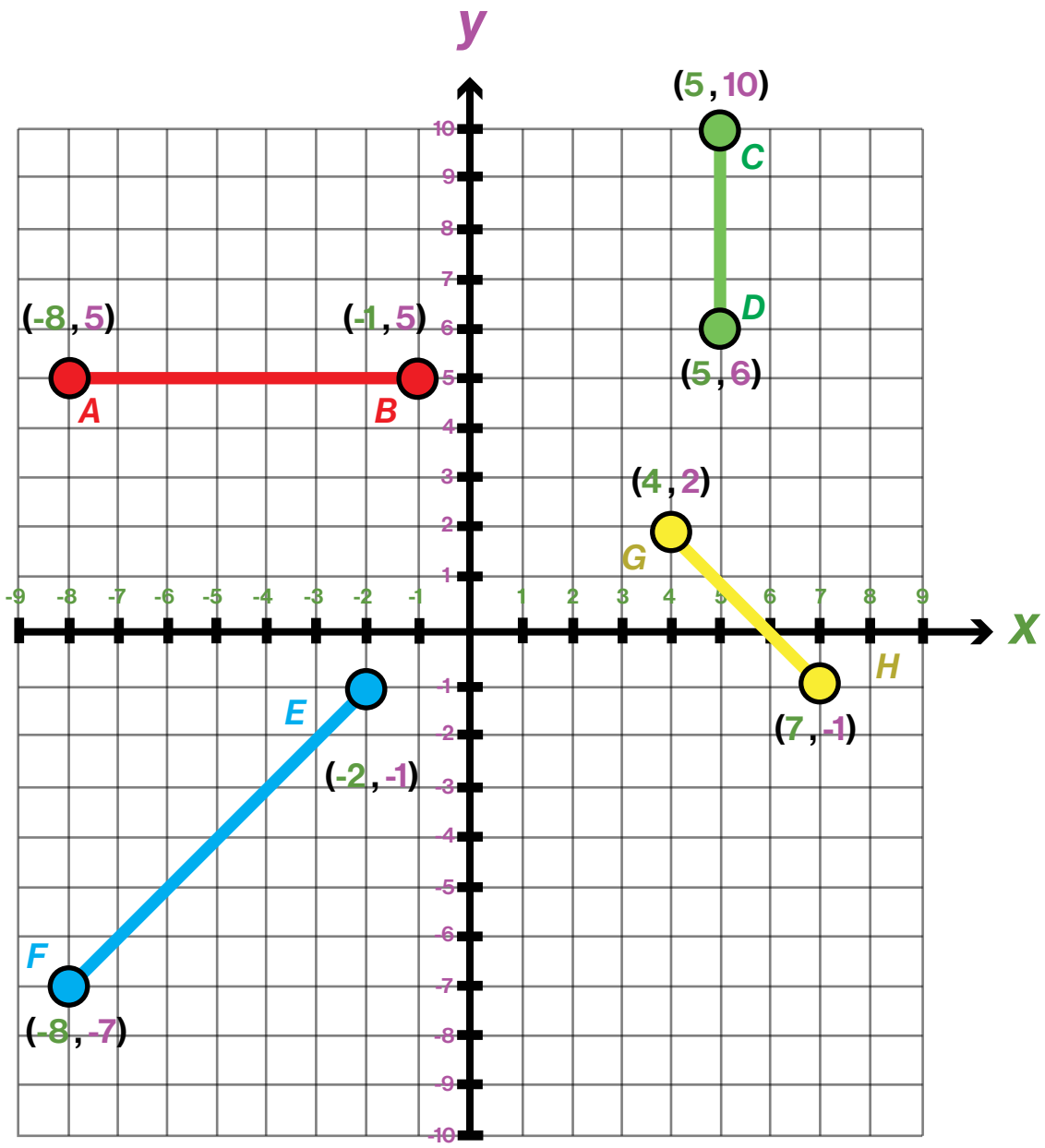
Coordinate Geometry Practice

Name: _____ Date: _____

Question 1

Find the midpoint of the line segments



I. $\overline{AB}$ Midpoint =

II. $\overline{CD}$ Midpoint =

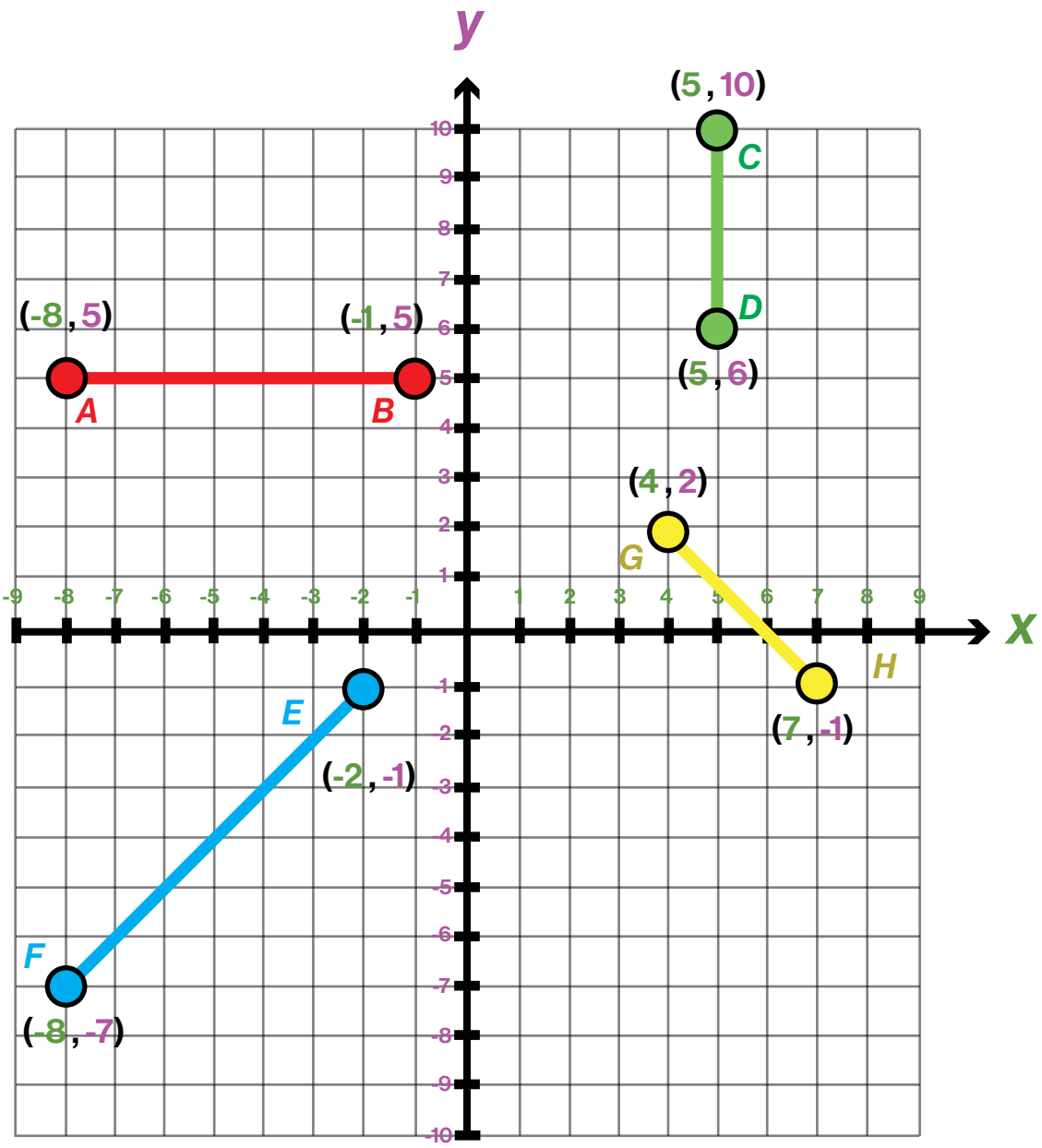
III. $\overline{EF}$ Midpoint =

IV. $\overline{GH}$ Midpoint =

Coordinate Geometry Practice

Question 2

Find the distance of the line segments



I. $\overline{AB}$ Distance =

II. $\overline{CD}$ Distance =

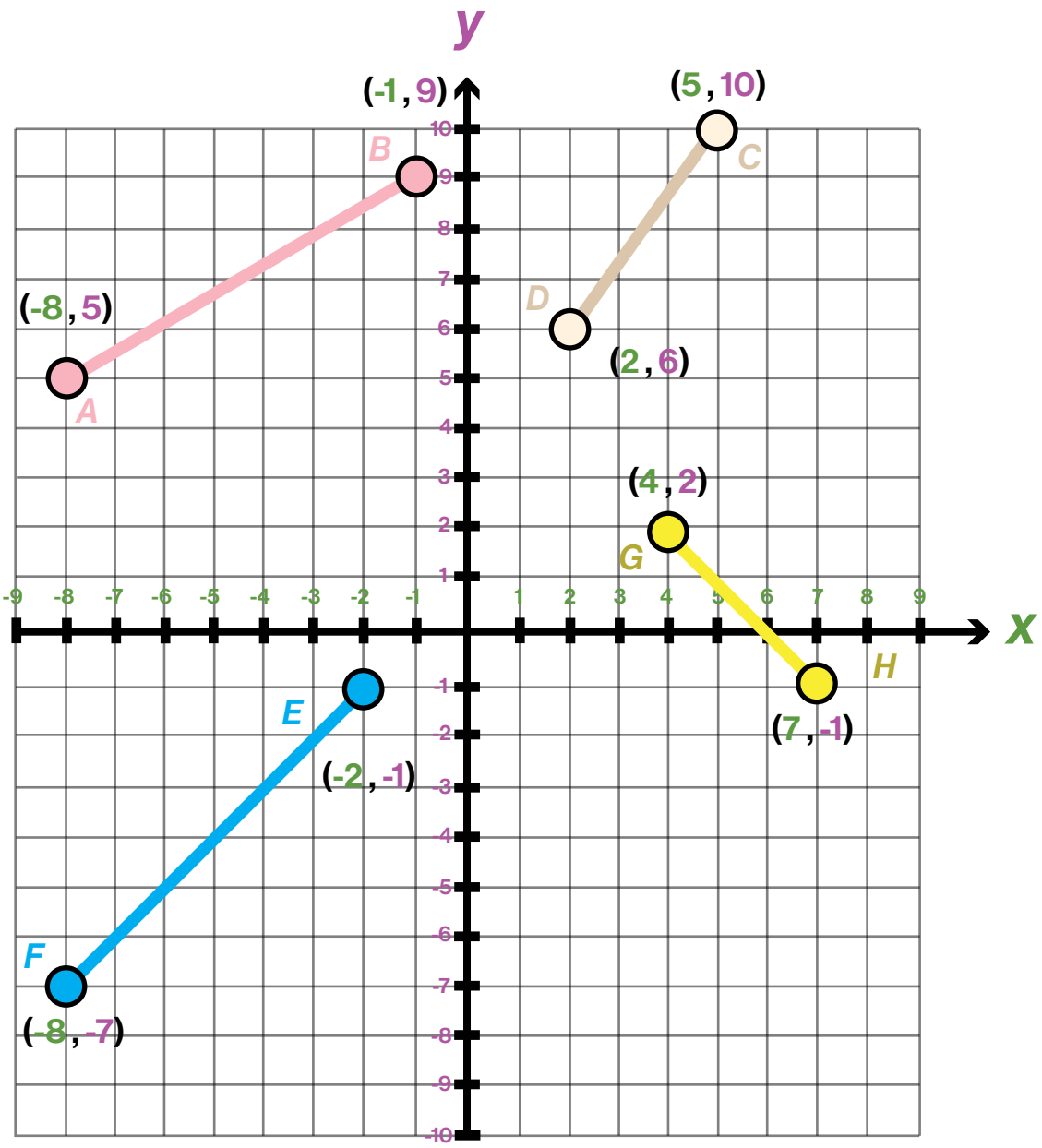
III. $\overline{EF}$ Distance =

IV. $\overline{GH}$ Distance =

Coordinate Geometry Practice

Question 3

Find the slope of the line segments



I. $\overline{AB}$ Slope =

II. $\overline{CD}$ Slope =

III. $\overline{EF}$ Slope =

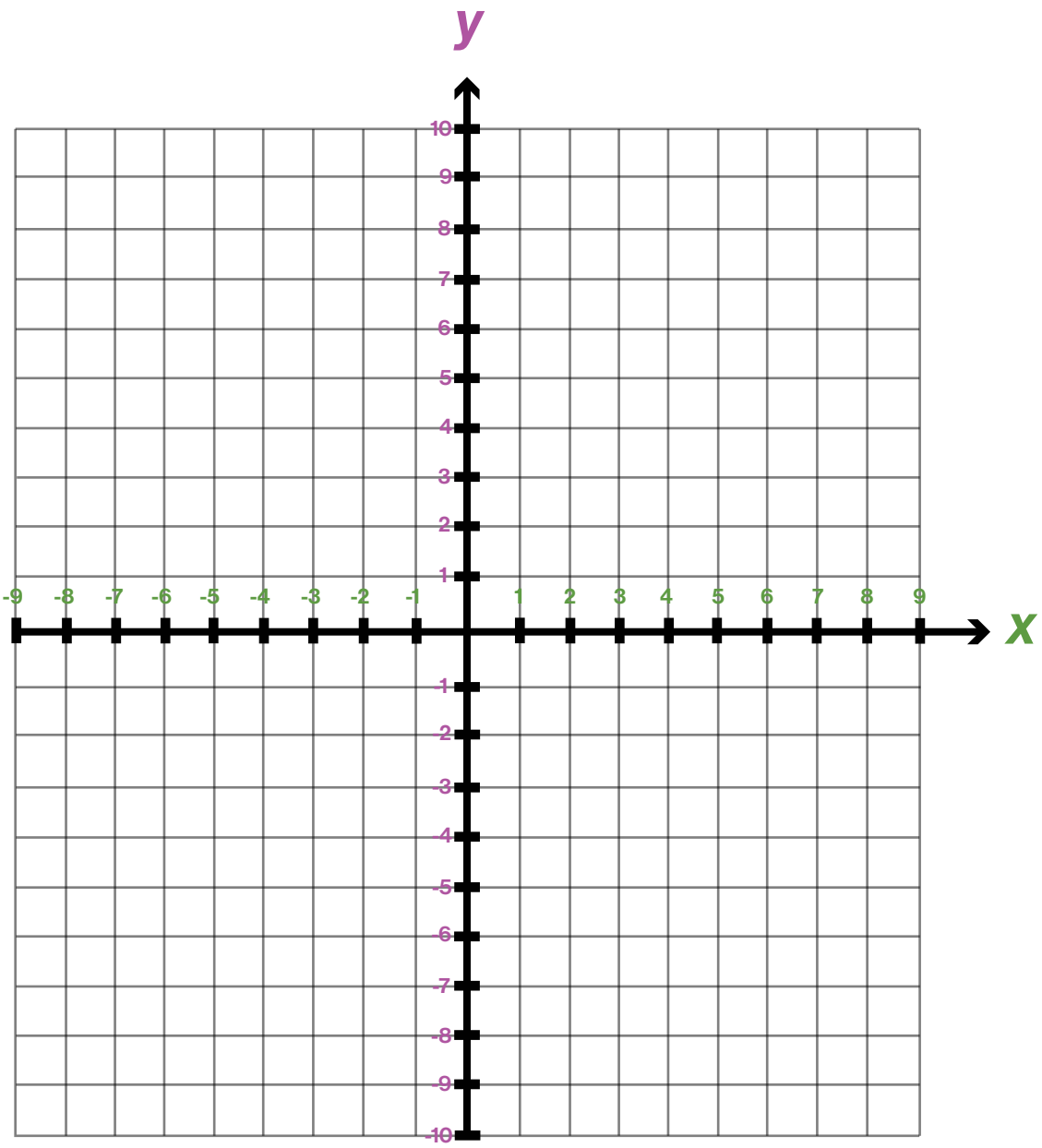
IV. $\overline{GH}$ Slope =

Coordinate Geometry Practice

Question 4

Graph the line (plot at least 3 points)

$$y = 3x + -2$$

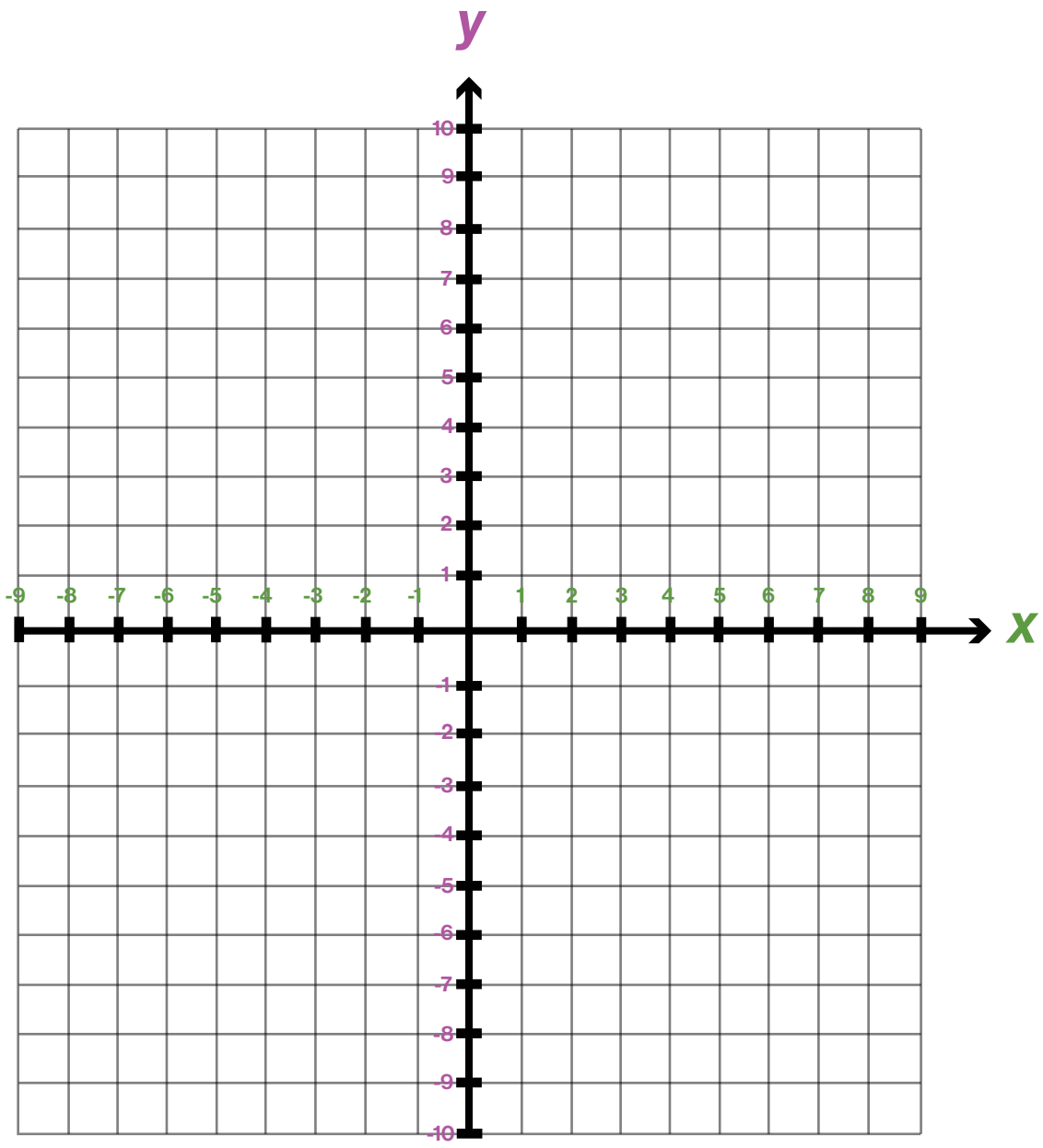


Coordinate Geometry Practice

Question 5

Graph the line (plot at least 3 points)

$$2x + 3y = -6$$

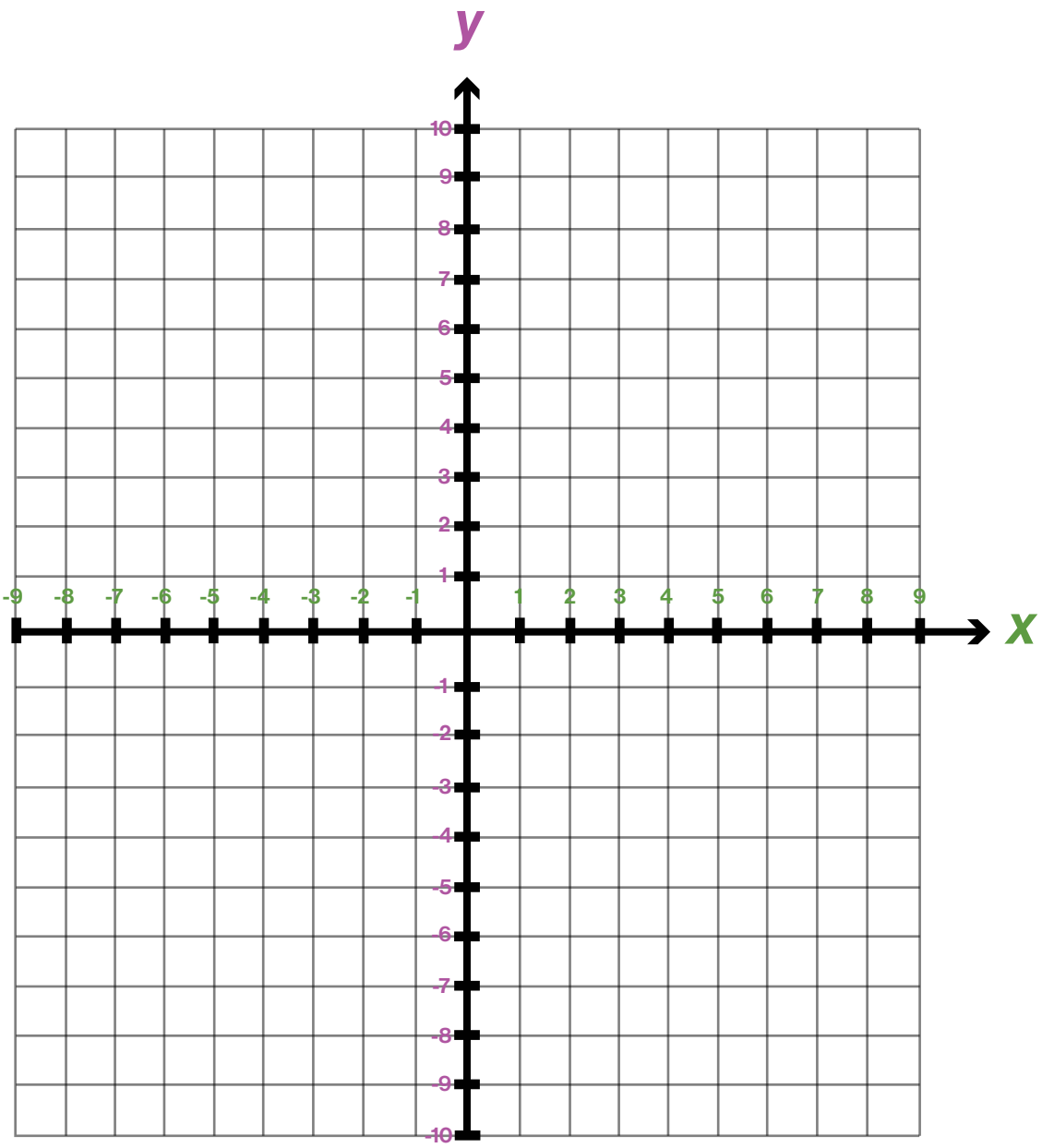


Coordinate Geometry Practice

Question 6

Graph the line (plot at least 3 points)

$$y - 3 = 2(x - 1)$$

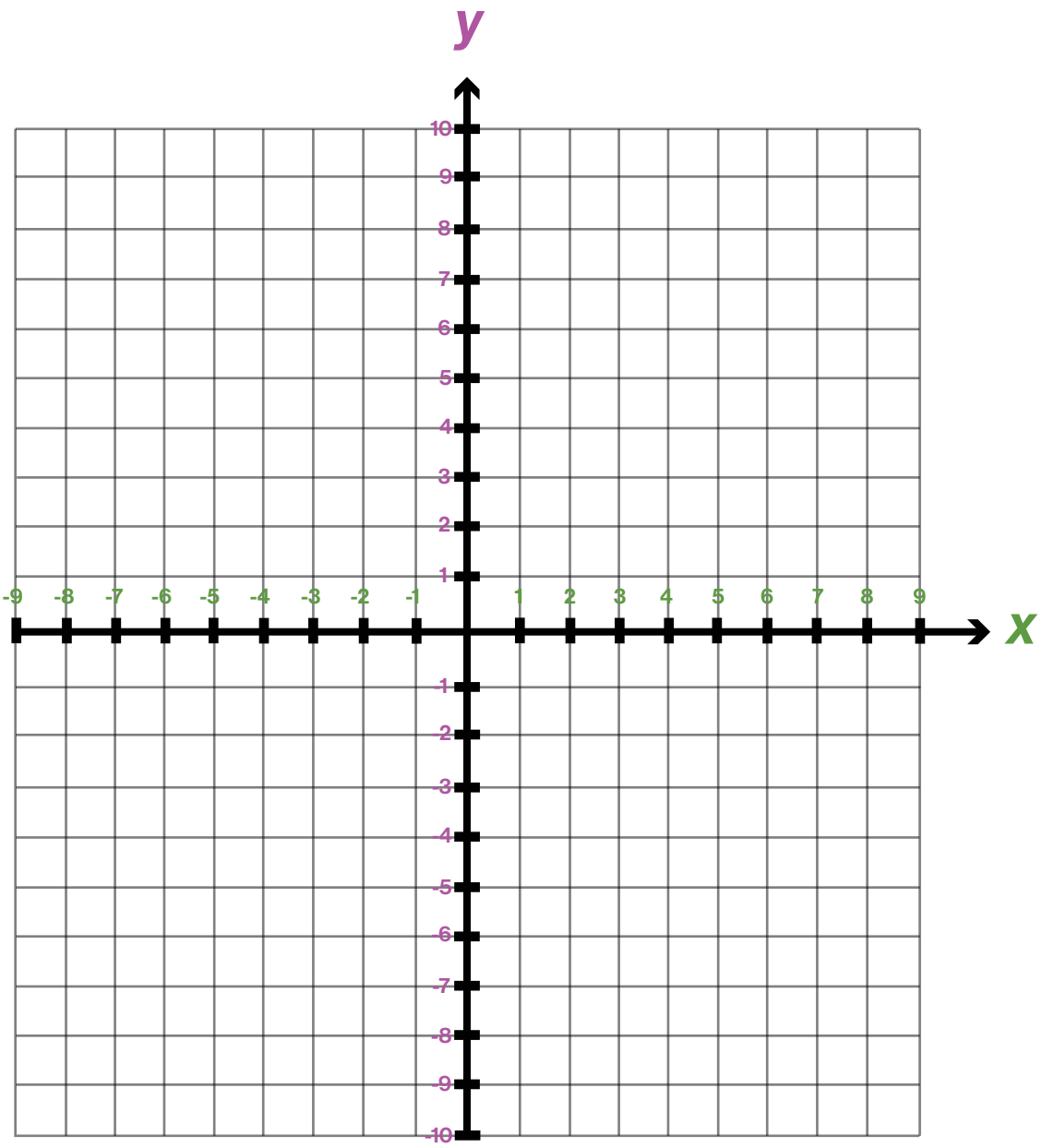


Coordinate Geometry Practice

Question 7

Graph the line (plot at least 3 points)

$y = -8$

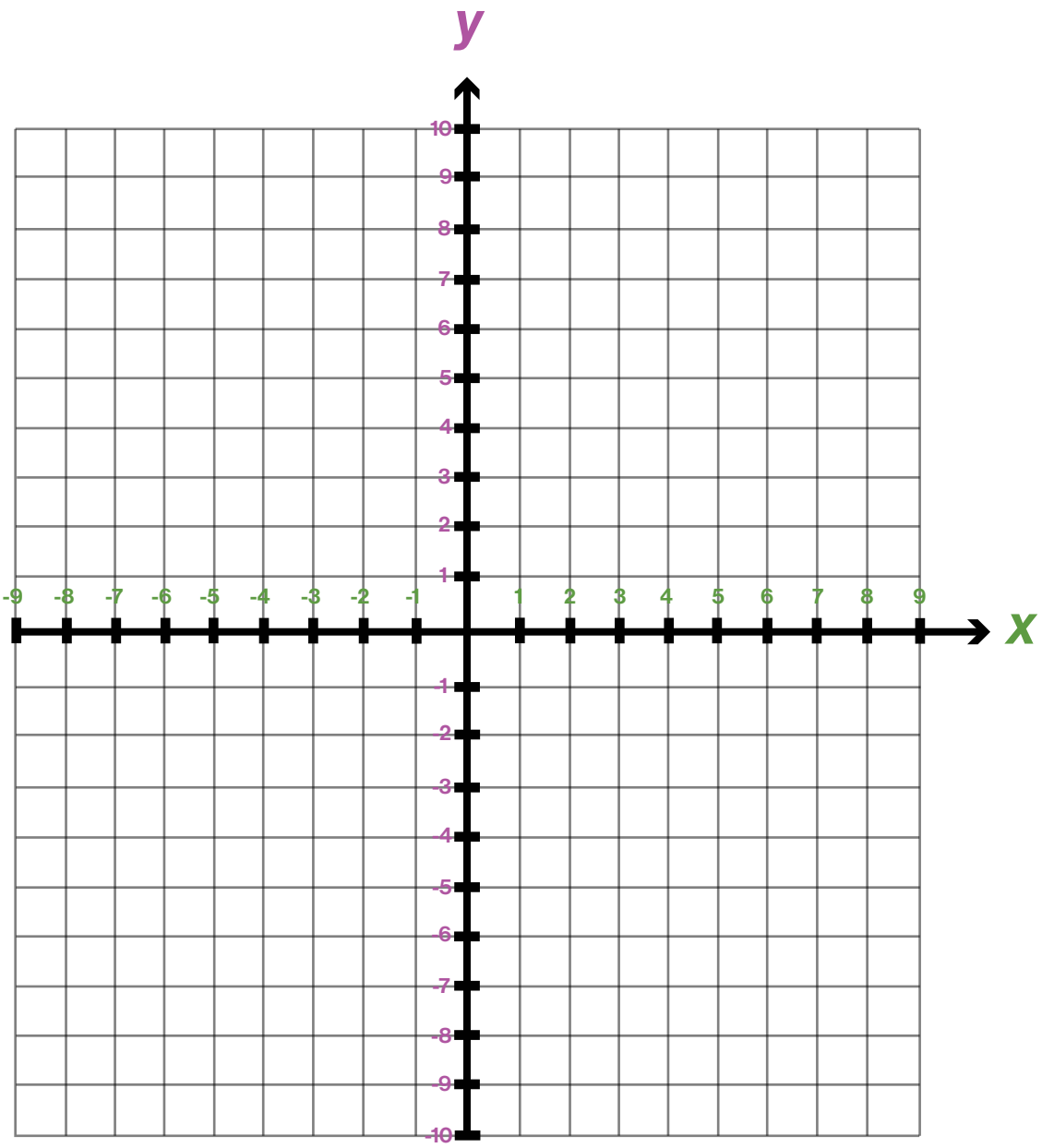


Coordinate Geometry Practice

Question 8

Graph the line (plot at least 3 points)

$x = 6$



Coordinate Geometry Practice

Question 9

Convert the linear equations

I.

Slope-intercept Form | Point-slope Form | Standard Form

$y = -3x + 2$

II.

Slope-intercept Form | Point-slope Form | Standard Form

$y + 3 = 2(x + 1)$

III.

Slope-intercept Form | Point-slope Form | Standard Form

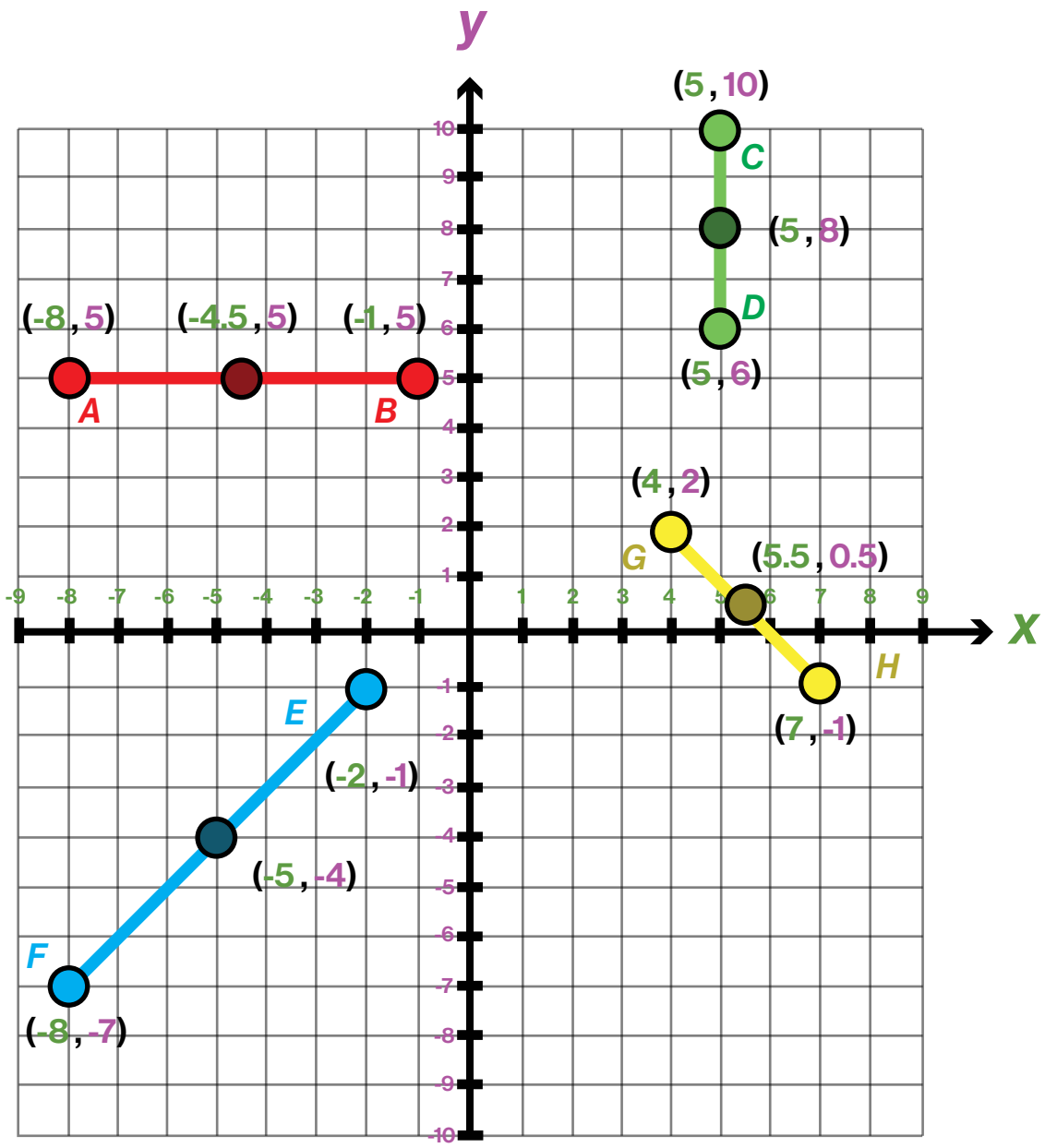
$3x + 2y = 6$

Coordinate Geometry Practice

Name: **Key** Date: _____

Question 1

Find the midpoint of the line segments



I. $\overline{AB}$ Midpoint = (-4.5 , 5)
(-8 + -1) / 2 = -4.5
(5 + 5) / 2 = 5

II. $\overline{CD}$ Midpoint = (5 , 8)
(5 + 5) / 2 = 5
(10 + 6) / 2 = 8

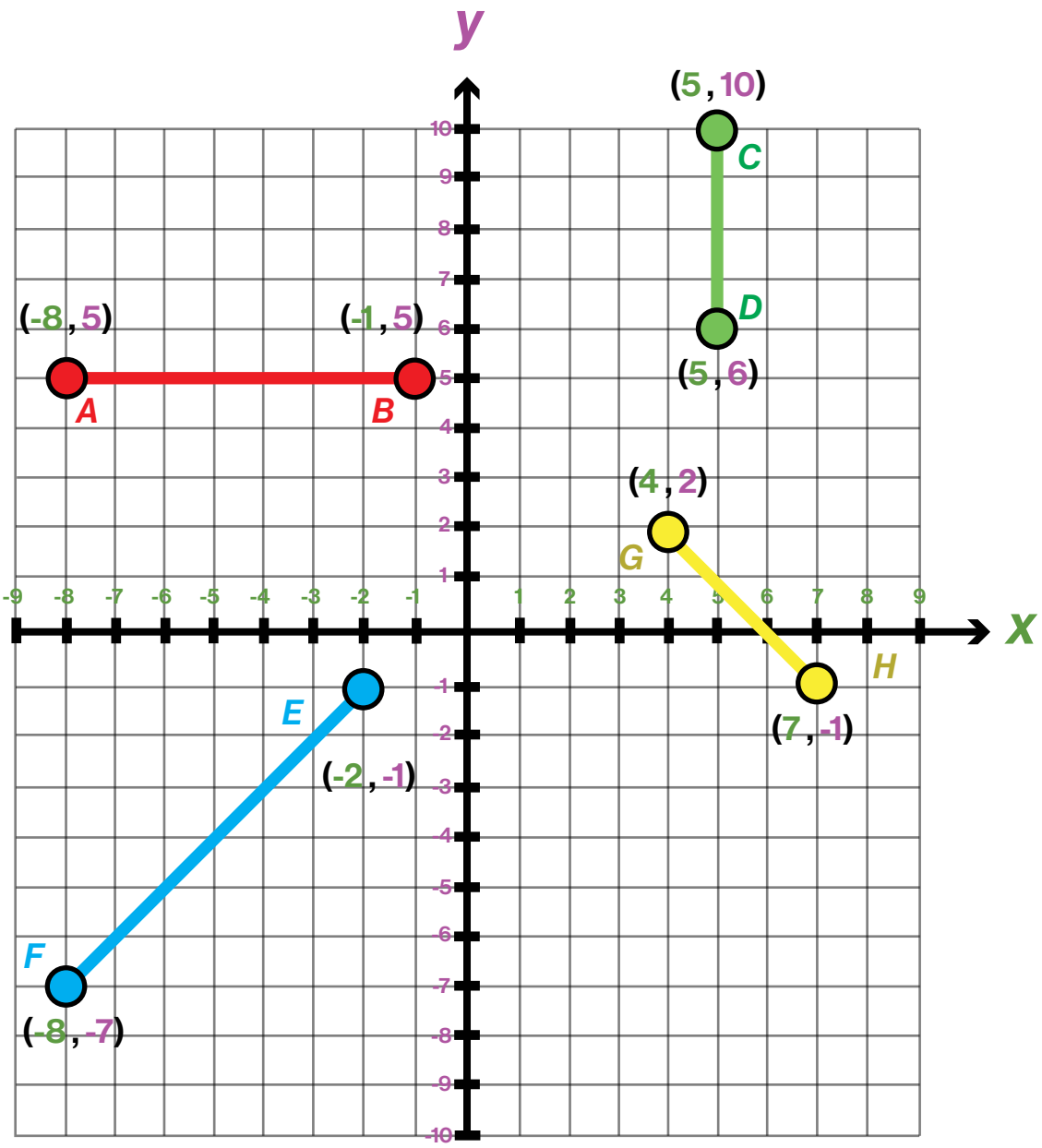
III. $\overline{EF}$ Midpoint = (-5 , -4)
(-2 + -8) / 2 = -5
(-1 + -7) / 2 = -4

IV. $\overline{GH}$ Midpoint = (5.5 , 0.5)
(4 + 7) / 2 = 5.5
(2 + -1) / 2 = 0.5

Coordinate Geometry Practice

Question 2

Find the distance of the line segments



I. $\overline{AB}$ Distance = 7

$\sqrt{(-1 - -8)^2 + (5 - 5)^2} = 7$

II. $\overline{CD}$ Distance = 4

$\sqrt{(5 - 5)^2 + (6 - 10)^2} = 4$

III. $\overline{EF}$ Distance ≈ 8.5

$\sqrt{(-8 - -2)^2 + (-7 - -1)^2} \approx 8.5$

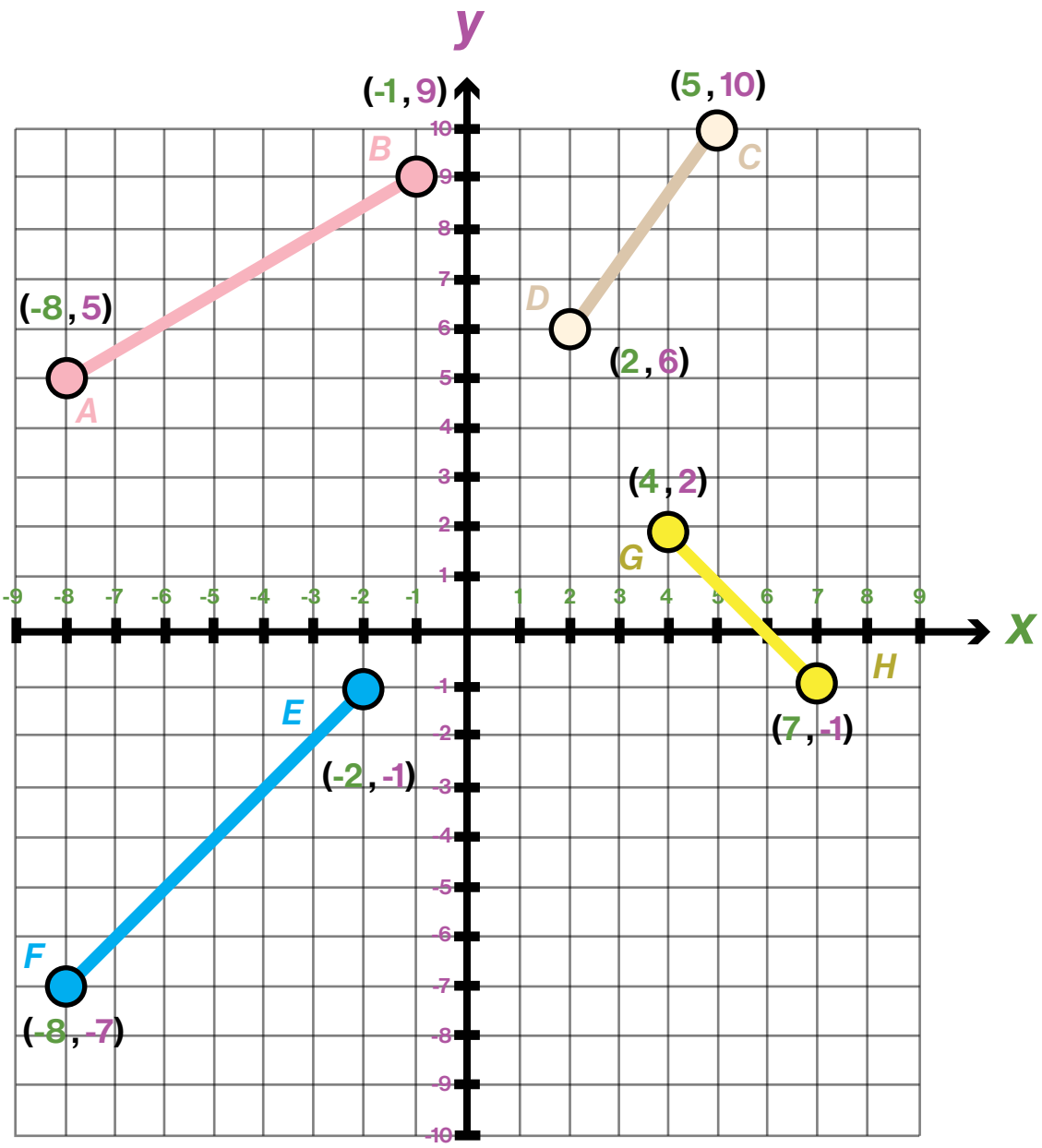
IV. $\overline{GH}$ Distance ≈ 4.2

$\sqrt{(7 - 4)^2 + (-1 - 2)^2} \approx 4.2$

Coordinate Geometry Practice

Question 3

Find the slope of the line segments



I. $\overline{AB}$ Slope = 4 / 7

(9 - 5) / (-1 - -8) = 4 / 7

II. $\overline{CD}$ Slope = -4 / -3

(6 - 10) / (2 - 5) = -4 / -3

III. $\overline{EF}$ Slope = -6 / -6

(-7 - -1) / (-8 - -2) = -6 / -6

IV. $\overline{GH}$ Slope = -3 / 3

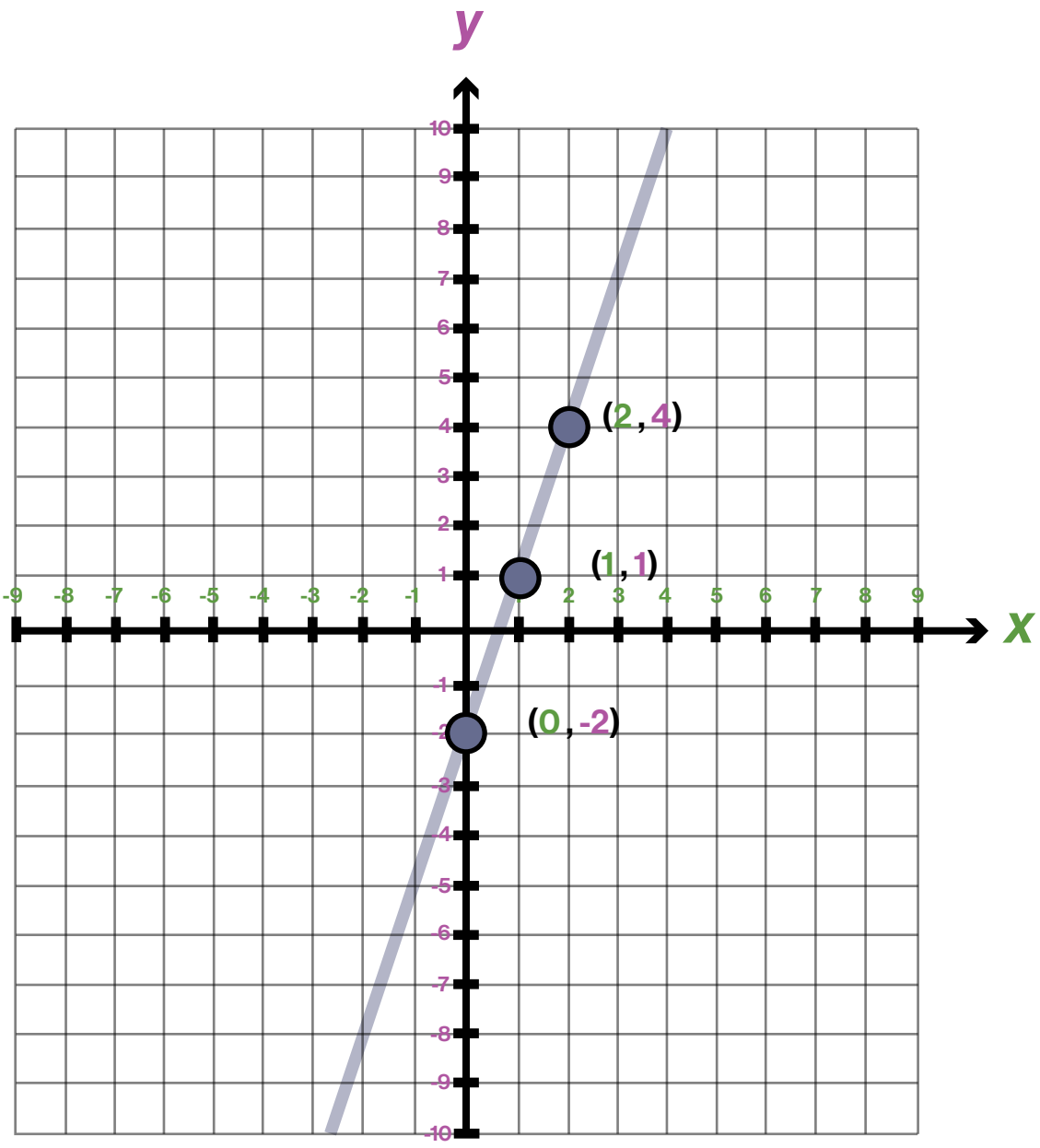
(-1 - 2) / (7 - 4) = -3 / 3

Coordinate Geometry Practice

Question 4

Graph the line (plot at least 3 points)

$$y = 3x + -2$$



Coordinate Geometry Practice

Question 5

Graph the line (plot at least 3 points)

$2x + 3y = -6$

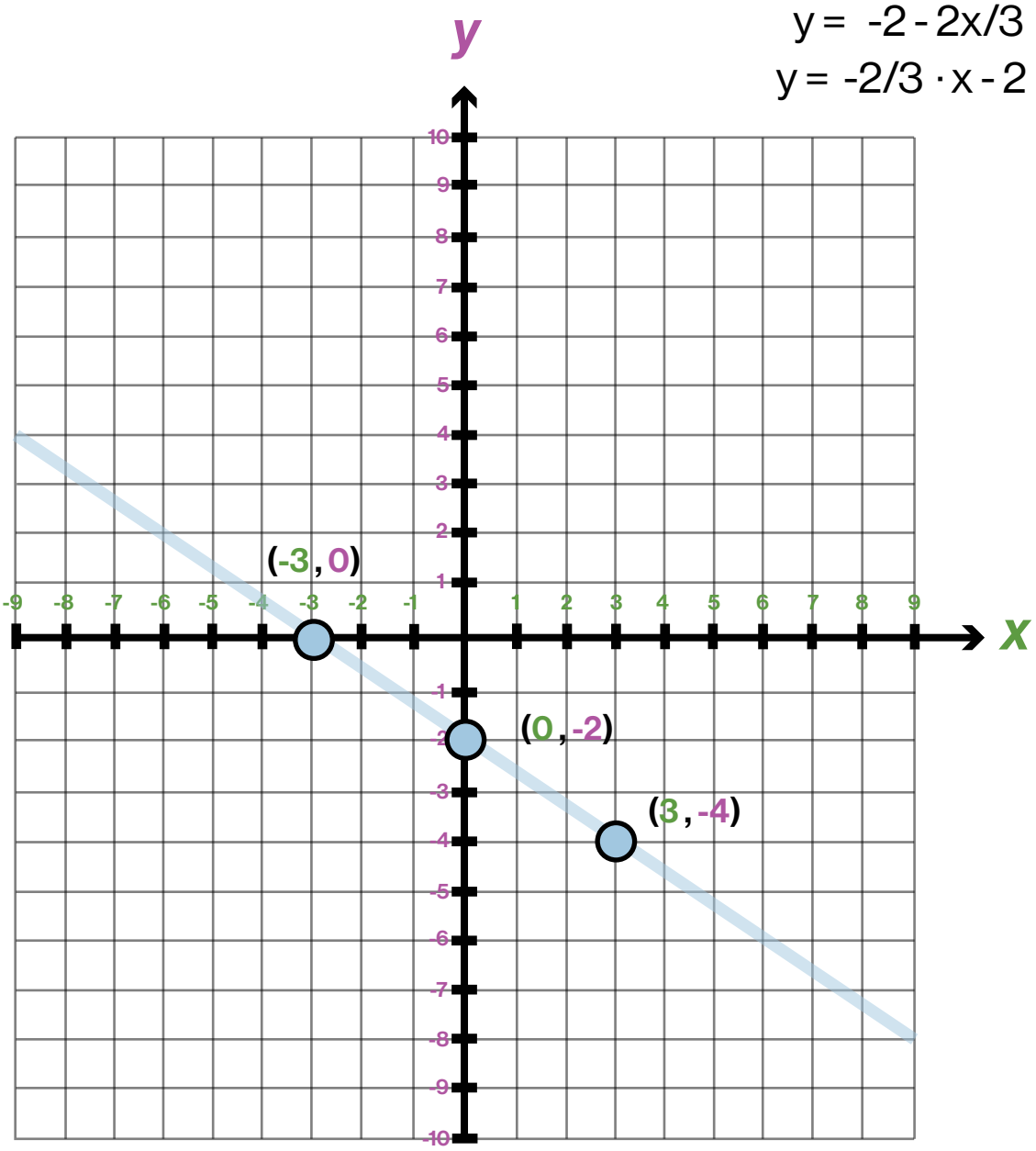
Slope-intercept Form

$2x + 3y = -6$

$3y = -6 - 2x$

$y = -2 - 2x/3$

$y = -2/3 \cdot x - 2$



Coordinate Geometry Practice

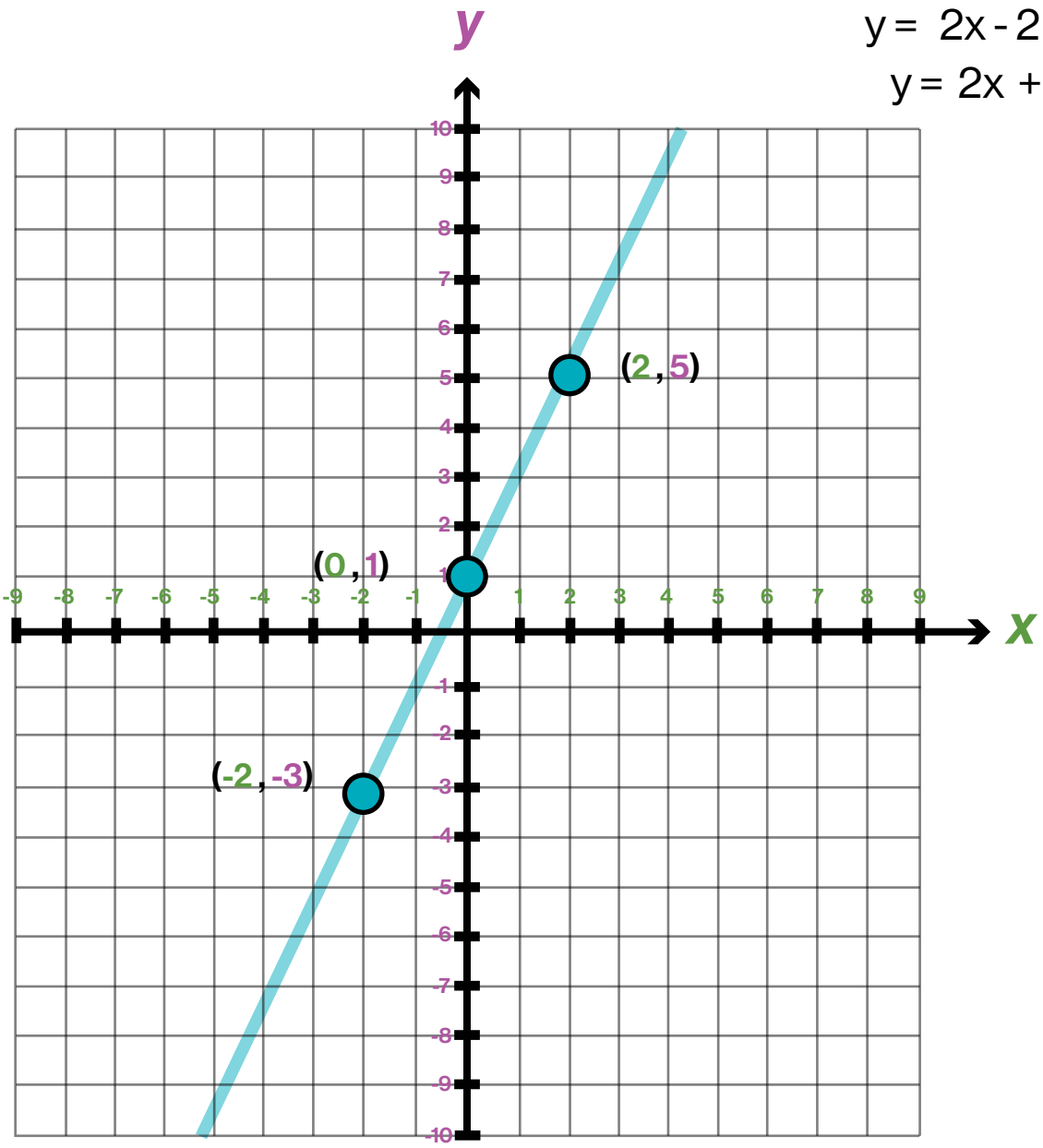
Question 6

Graph the line (plot at least 3 points)

$$y - 3 = 2(x - 1)$$

Slope-intercept Form

$$y-3 = 2(x - 1)$$
$$y-3 = 2x - 2$$
$$y = 2x - 2 + 3$$
$$y = 2x + 1$$

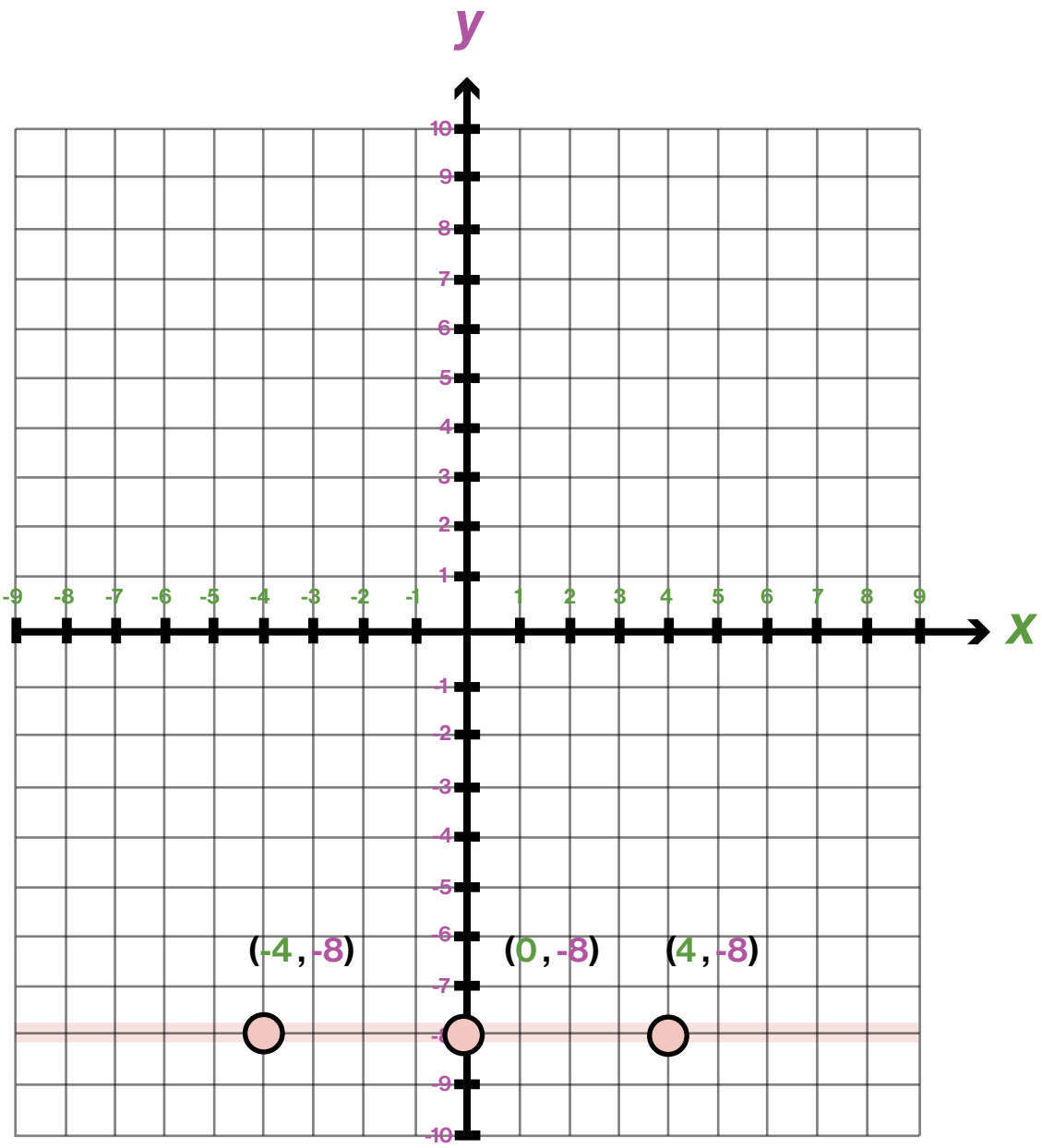


Coordinate Geometry Practice

Question 7

Graph the line (plot at least 3 points)

$y = -8$

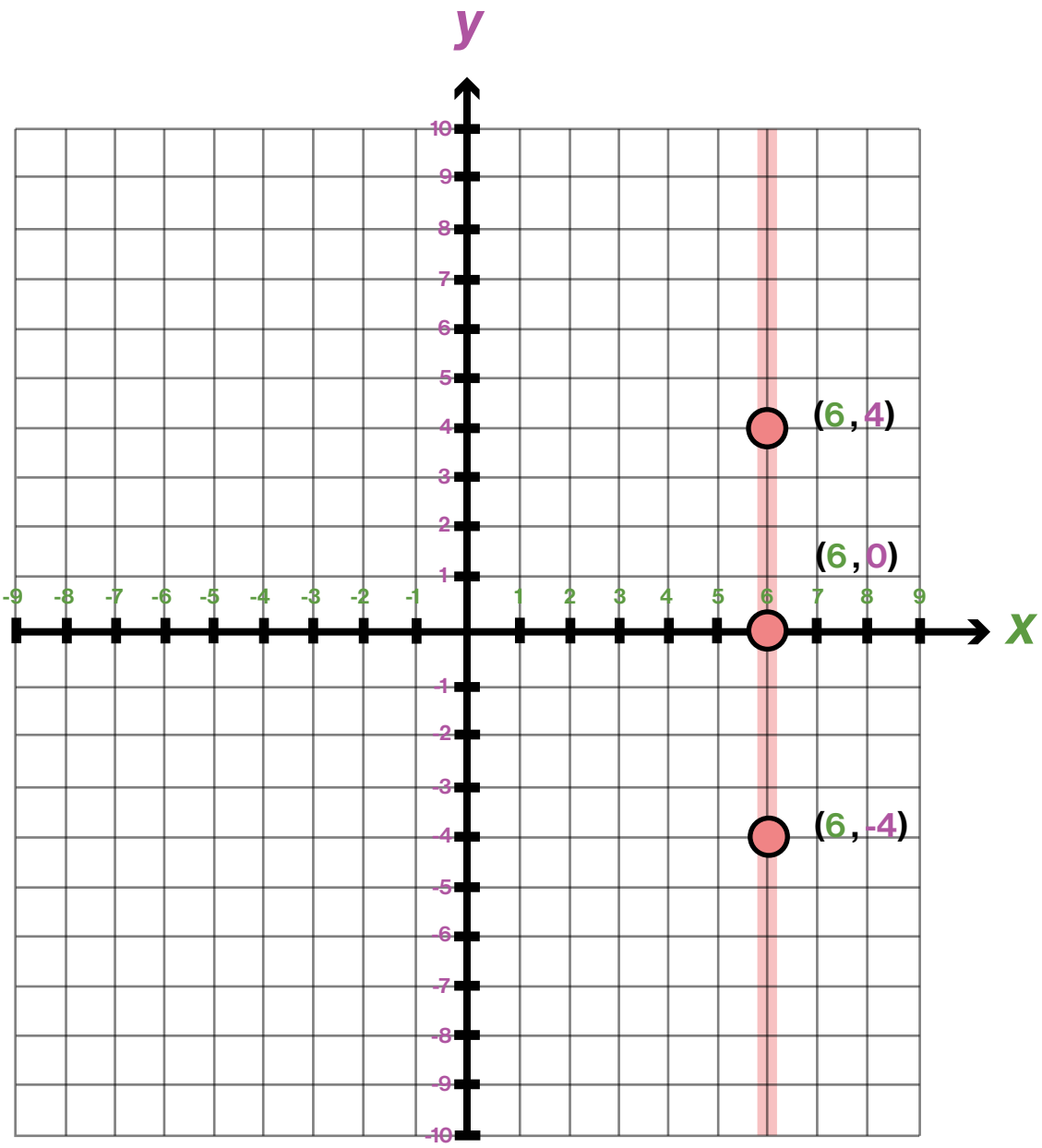


Coordinate Geometry Practice

Question 8

Graph the line (plot at least 3 points)

$x = 6$



Coordinate Geometry Practice

Question 9

Convert the linear equations

I.

Slope-intercept Form	Point-slope Form	Standard Form
$y = -3x + 2$	$y - 2 = -3(x - 0)$	$3x + y = 2$
	point $(0 , 2)$	

II.

Slope-intercept Form	Point-slope Form	Standard Form
$y = 2x - 1$	$y + 3 = 2(x + 1)$	$-2x + y = -1$

III.

Slope-intercept Form	Point-slope Form	Standard Form
$y = -3/2 \cdot x + 3$	$y - 3 = -3/2(x - 0)$	$3x + 2y = 6$
	point $(0 , 3)$	