

Analytic Geometry

- 1 Find the distance between the given (x,y) points

Point A : (2,0)

Point B : (3,1)

A 3.09	B 1.41	C 2.25
D 1.95	E 3.93	F 1

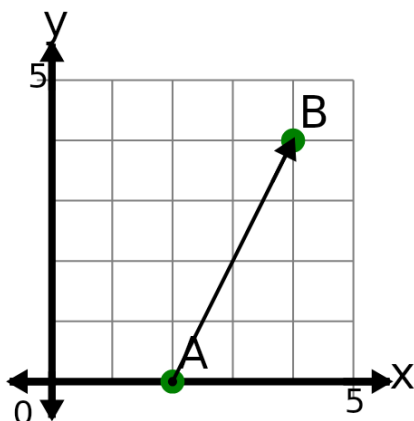
- 2 Find the distance between the given (x,y) points

Point A : (2,1)

Point B : (3,4)

A $\sqrt{1}$	B $\sqrt{7}$	C $\sqrt{2}$
D $\sqrt{16}$	E $\sqrt{4}$	F $\sqrt{10}$

- 3 Find the distance between point A and point B on the diagram



A 1.95	B 1	C 2.79
D 7.83	E 3.46	F 4.47

- 4 Find the other endpoint B of segment AB given endpoint A and the midpoint

Endpoint A : (4,10)

Midpoint of AB : (5,8)

A (-1,6)	B (6,13)
C (6,6)	D (6,7)
E (5,6)	F (14,-2)

- 5 Find the mid-point of segment AB

Point A : (1,10)

Point B : (4,7)

A (1.5,4)	B (2.5,8.5)
C (2,3.5)	

- 6 What line equation in standard form would have a slope that is PARALLEL to the slope of this line equation?

$$-12x + 3y = 3$$

A $-6x + 3y = 3$
B $-4x + 1y = 1$

- 7 What does this pair of linear equations tell you about the two lines?

$$4x + 4y = 6$$

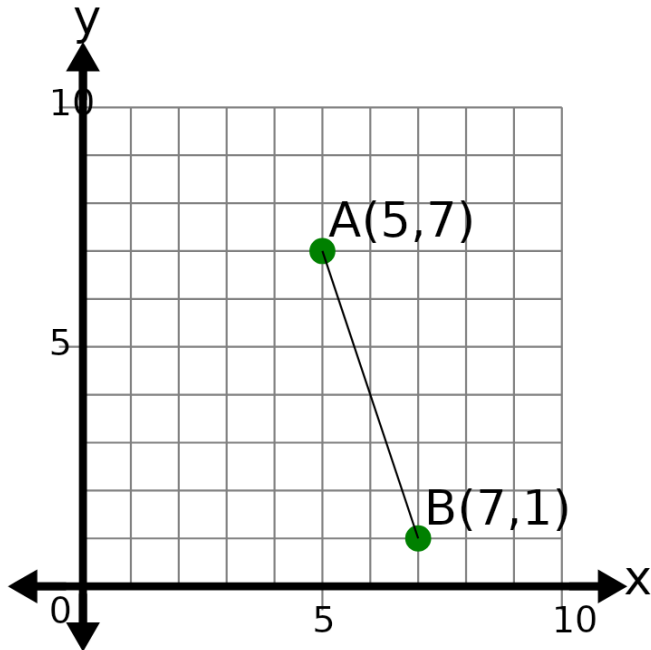
$$4x + 4y = 11$$

A The lines cross at one point
B The lines are parallel
C The lines are the same line



Analytic Geometry

- 8 Find the mid-point of segment AB



A

 $(5.5, 2.5)$

B

 $(6, 4)$

C

 $(6, 3)$

- 9 What line equation would have a slope that is PARALLEL to the slope of this line equation?

$$y = -1x + 2$$

A

$$y = -1x + 2$$

B

$$y = \frac{1}{2}x + 2$$

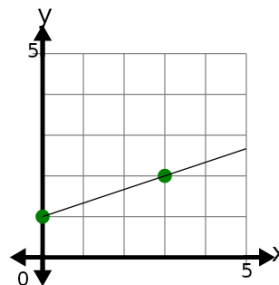
C

$$y = 1x + 2$$

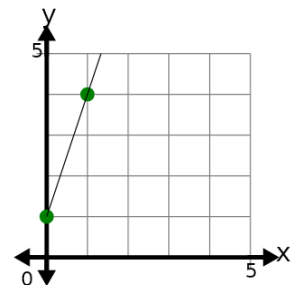
- 10 What line has a slope that is PARALLEL to the slope of this line equation?

$$y = \frac{1}{3}x + 1$$

A



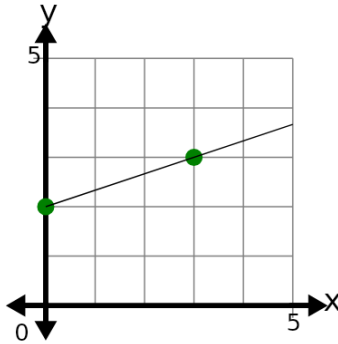
B



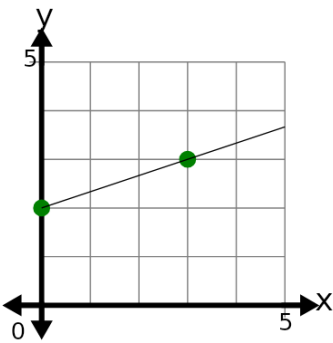


Analytic Geometry

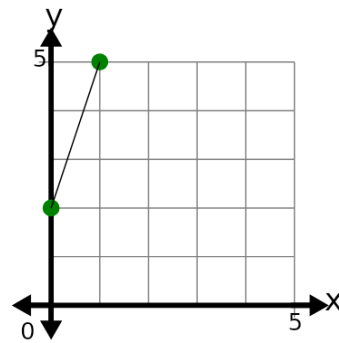
11 What line has a slope that is PARALLEL to the slope of the line on this graph?



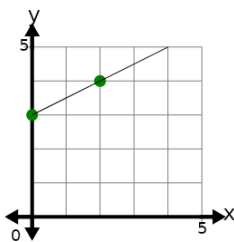
A



B



12 What line equation in standard form would have a slope that is PARALLEL to the slope of the line on this graph?



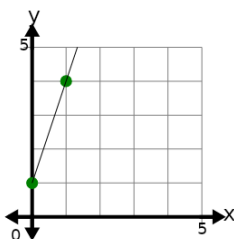
A

$$-0.5x + 1y = 3$$

B

$$0.5x + 1y = 3$$

13 What line equation in standard form would have a slope that is PERPENDICULAR to the slope of the line on this graph?



A

$$0.33x + 1y = 1.33$$

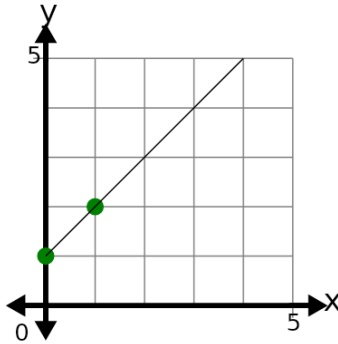
B

$$0.5x + 3y = 4$$

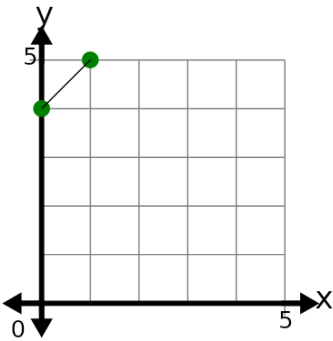


Analytic Geometry

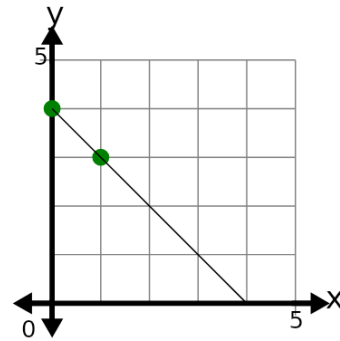
14 What line has a slope that is PERPENDICULAR to the slope of the line on this graph?



A



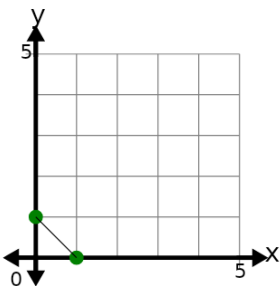
B



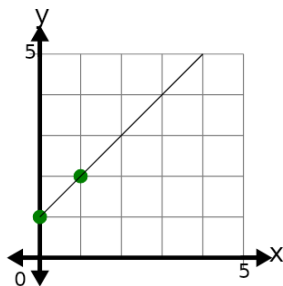
15 What line has a slope that is PERPENDICULAR to the slope of this line equation?

$$-2x + 2y = 4$$

A



B



16 Find the slope of the PERPENDICULAR to segment AB

Point A : (6, 9)

Point B : (8, 5)

A	$\frac{1}{4}$	B	$\frac{1}{2}$	C	$-\frac{1}{2}$
D	$\frac{1}{3}$	E	$\frac{2}{7}$	F	$\frac{3}{2}$

17 Find the distance between the given (x,y) points

Point A : (-1, 2)

Point B : (-3, -3)

A	$\sqrt{39}$	B	$\sqrt{47}$	C	$\sqrt{11}$
D	$\sqrt{9}$	E	$\sqrt{29}$	F	$\sqrt{33}$



Analytic Geometry

18 Find the equation of the line through the two (x, y) points in slope/y-intercept form ($y = mx + b$)

(6, 2) and (10, 7)

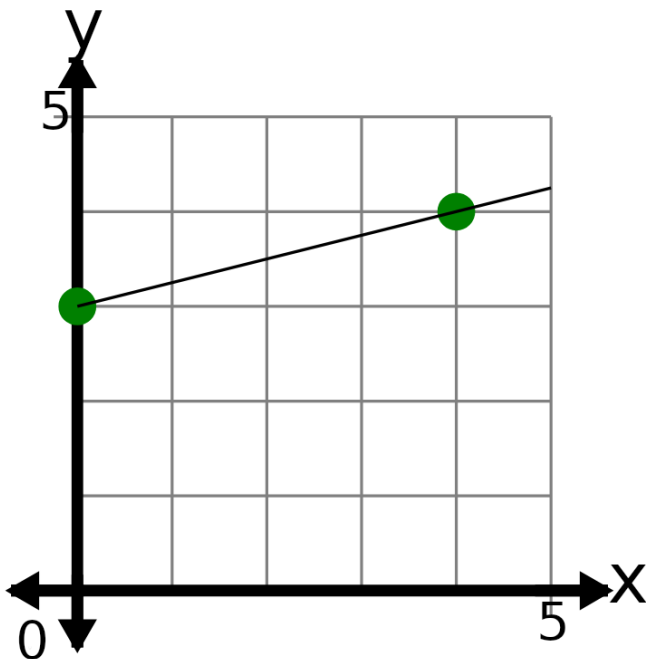
A

$$y = \frac{5}{4}x + -\frac{9}{4}$$

B

$$y = \frac{5}{4}x + -\frac{11}{2}$$

19 What line equation would have a slope that is PERPENDICULAR to the slope of the line on this graph?



A

$$y = -4x$$

B

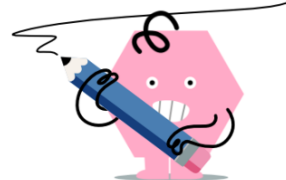
$$y = 4x$$

C

$$y = -\frac{1}{4}x$$

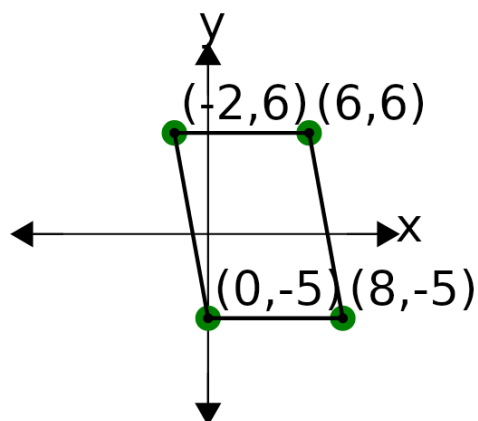
D

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



Analytic Geometry

- 20** Find the area of the parallelogram formed by these coordinates



- 21** What line equation would have a slope that is PARALLEL to the slope of this line equation?

$$12x + 3y = 12$$

A

$$y = -4x + 4$$

B

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

C

$$y = -\frac{1}{4}x + 4$$

D

$$y = 4x + 4$$

- 22** What line equation would have a slope that is PARALLEL to the slope of this line equation?

$$y = -\frac{1}{5}x$$

A

$$y = -5x + 0.2$$

B

$$y = \frac{5}{2}x + 0.2$$

C

$$y = -\frac{1}{5}x + 0.2$$

D

$$y = \frac{1}{5}x + 0.2$$

- 23** What line equation would have a slope that is PARALLEL to this slope?

$$m = 5$$

A

$$y = 5x + 2$$

B

$$y = -5x + 2$$

C

$$y = \frac{1}{5}x + 2$$

D

$$y = \frac{5}{2}x + 2$$