



Line Equations and Graphing - Intro

1 What is the missing value in the table?

Rule: multiply by 4 then add 4

Input	Output
1	?
2	12
3	16
4	20
9	40

A	13
B	15
C	4
D	8

2 What rule turns each input into its output?

Input	Output
2	12
4	22
5	27
6	32
7	37

A	multiply by 2 then subtract 2
B	multiply by 5 then add 2
C	multiply by 3 then add 11
D	multiply by 6 then add 9



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3 Does this rule create each output from its input?

Rule: multiply by 4 then subtract 2

Input	Output
3	10
4	14
5	18
8	30
9	34

A

No

B

Yes

4 What rule turns each input into its output?

Input	Output
2	?
5	23
6	28
7	33
9	43

A

multiply by 5 then subtract 6

B

multiply by 4 then subtract 9

C

multiply by 4 then subtract 12

D

multiply by 5 then subtract 2



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5 What is the missing value in the table?

Input	Output
1	7
3	11
4	?
5	15
7	19

A

9

B

24

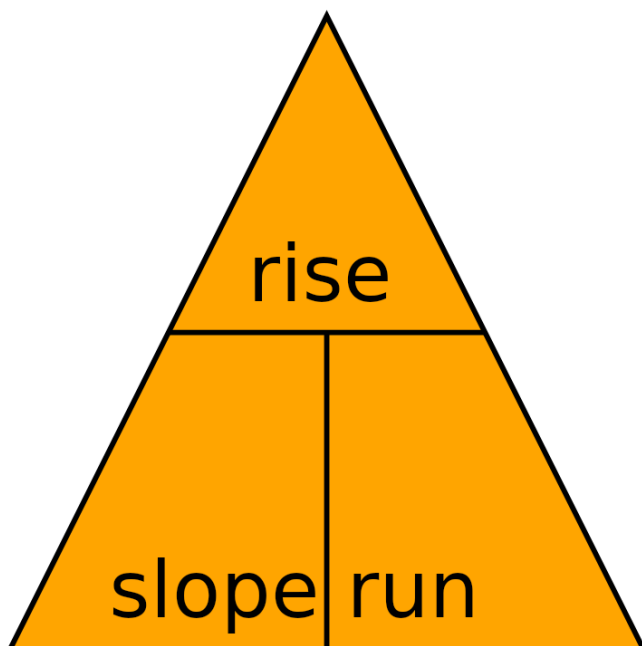
C

5

D

13

6 Which slope fact comes from this fact family



A

$$\text{slope} = \frac{\text{rise}}{\text{run}}$$

B

$$\text{slope} = \frac{\text{run}}{\text{rise}}$$

C

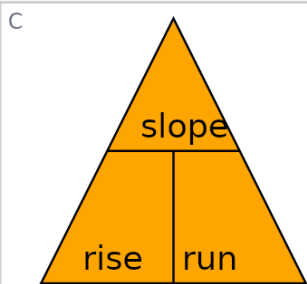
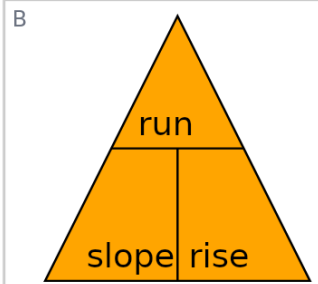
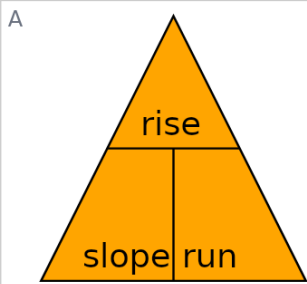
$$\text{rise} = \frac{\text{slope}}{\text{run}}$$



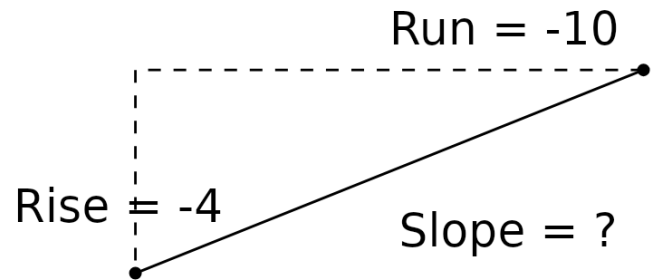
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- 7 What fact family triangle would give this slope fact?

$$\text{slope} = \frac{\text{rise}}{\text{run}}$$

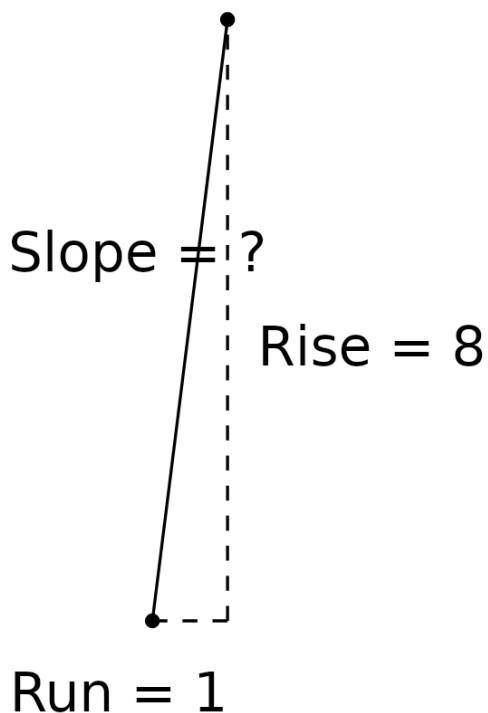


- 8 How would you calculate the slope of the line given that slope is rise/run?

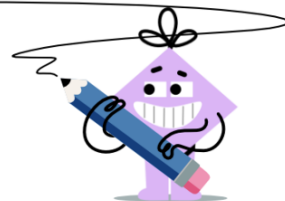


- | | | | |
|---|----------------|---|------------------------|
| A | $10 \cdot -4$ | B | $\frac{-10}{-4 + -10}$ |
| C | $-10 \cdot -4$ | D | $\frac{-4}{-10}$ |
| E | $-4 \cdot -10$ | | |

- 9 How would you calculate the slope of the line given that slope is rise/run?

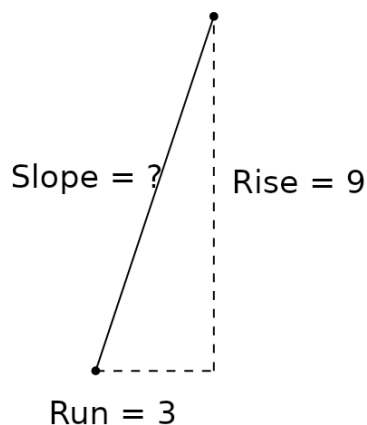


- | | |
|---|-----------------------|
| A | $\frac{8 + 1}{8 - 1}$ |
| B | $\frac{1}{8}$ |
| C | $1 \cdot 8$ |
| D | $\frac{8}{1}$ |



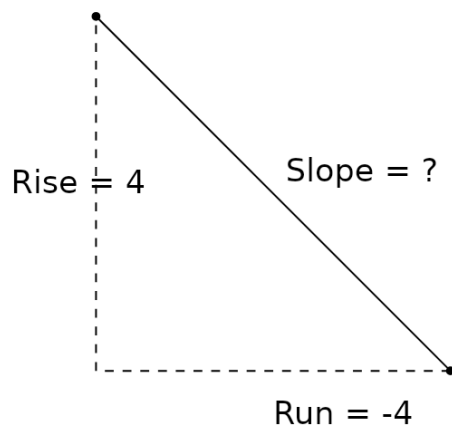
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10 Calculate the slope of the line given that slope is rise/run



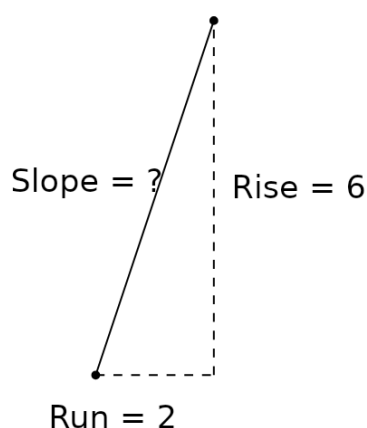
A	-1.2	B	-0.6	C	-0.25
D	6.6	E	2.4	F	3

11 Calculate the slope of the line given that slope is rise/run



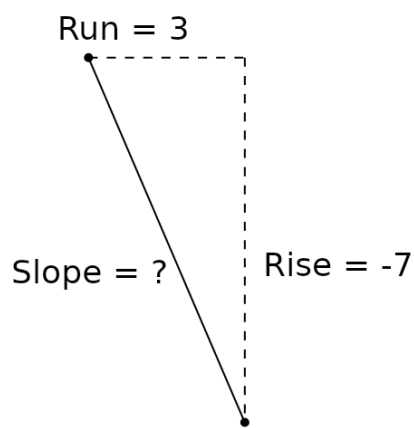
A	-0.6	B	2.25	C	-1.6
D	-1.4	E	-0.2	F	-1

12 Calculate the slope of the line given that slope is rise/run



A	0.33	B	6	C	1.8
D	1	E	2.25	F	3

13 Calculate the slope of the line given that slope is rise/run

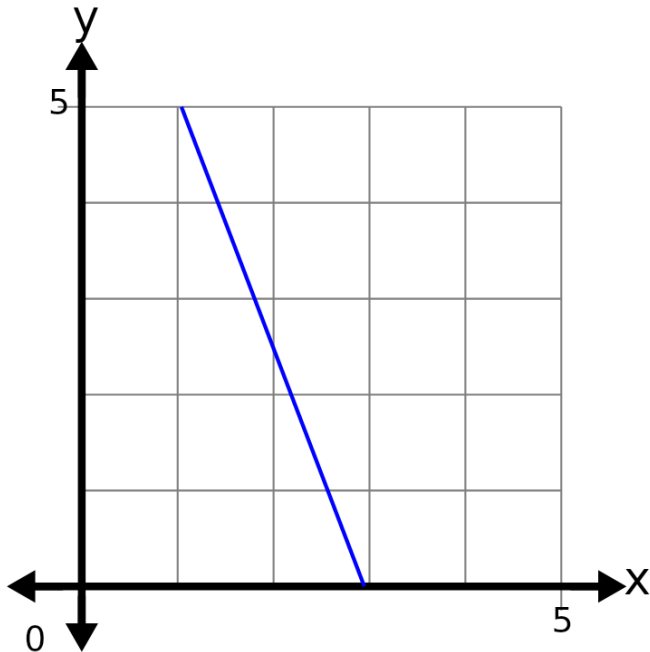


A	-0.75	B	-2.33	C	2.33
D	-0.47	E	-0.43	F	2.5



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14 Is the slope of the line steep or shallow?



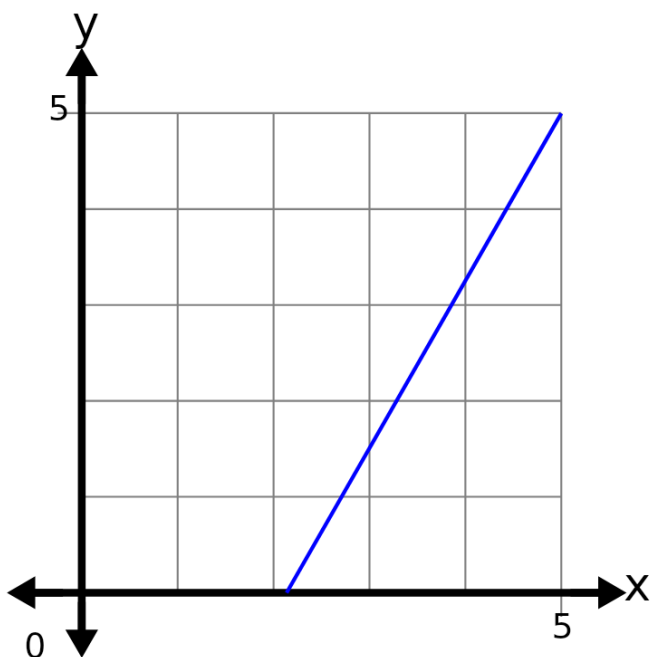
A

Steep

B

Shallow

15 Is the slope of the line positive, negative, or zero?



A

Positive

B

Negative

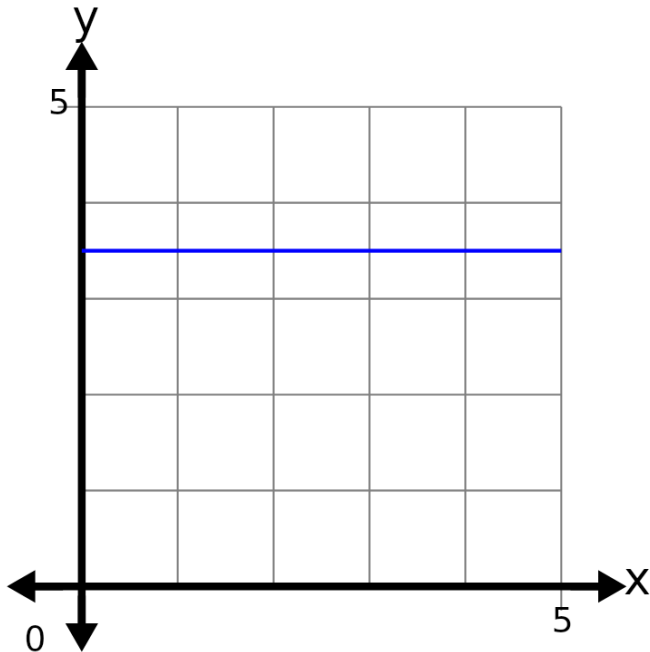
C

Zero



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16 Describe the slope of the line.



A

Shallow Negative

B

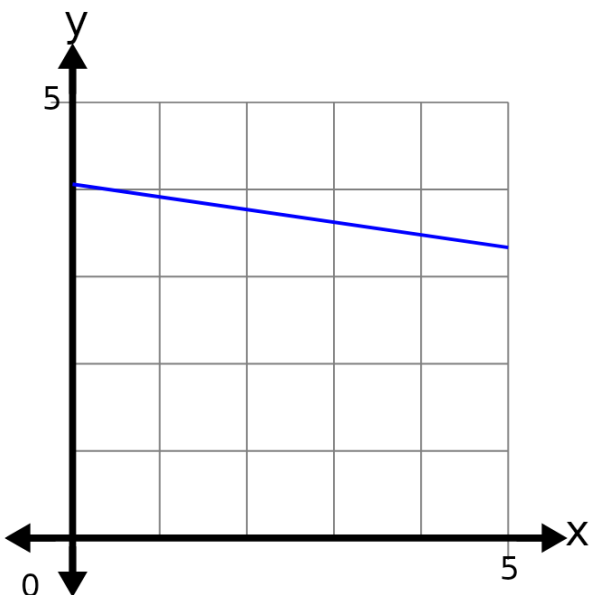
Zero

C

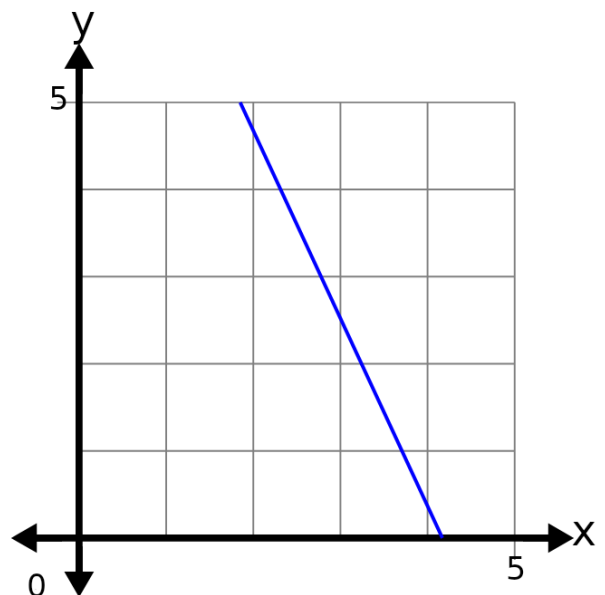
Steep Negative

17 Which graph shows a line with a shallow slope?

A



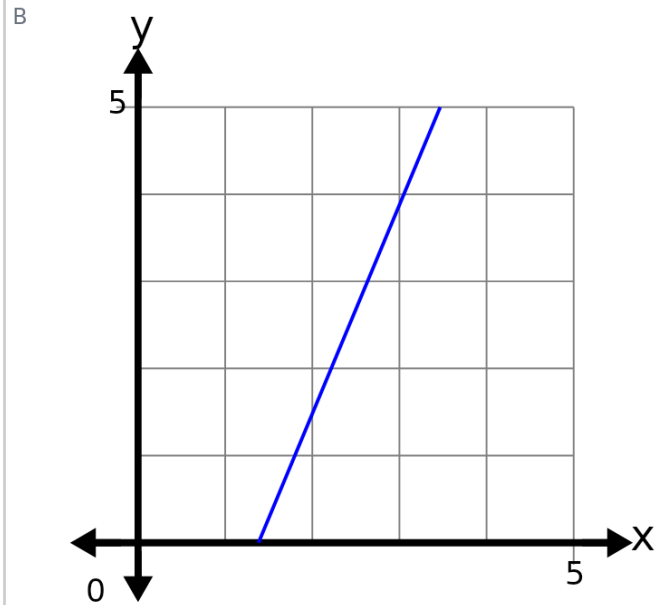
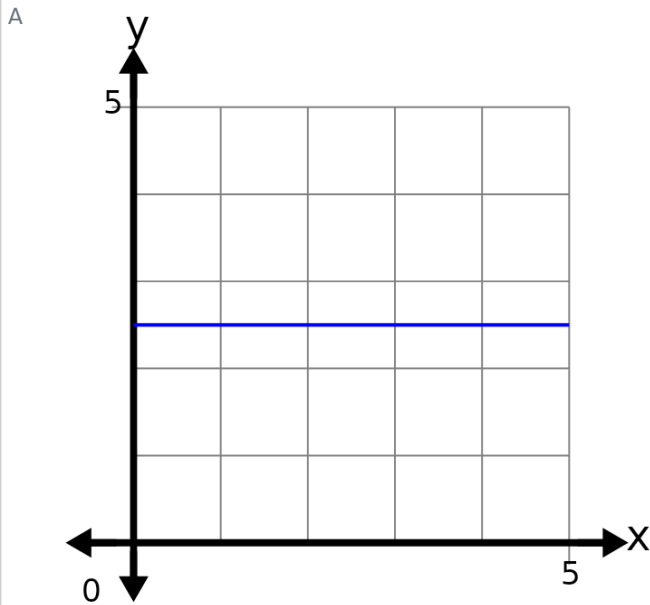
B



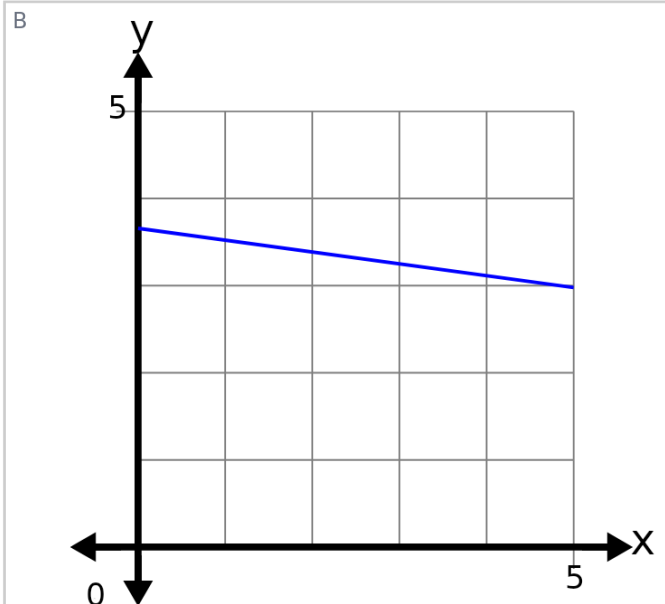
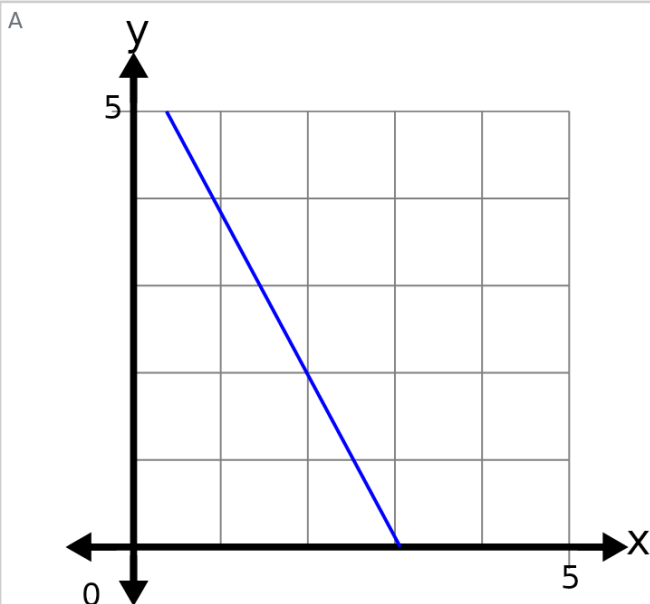


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18 Which graph shows a line with a zero slope?



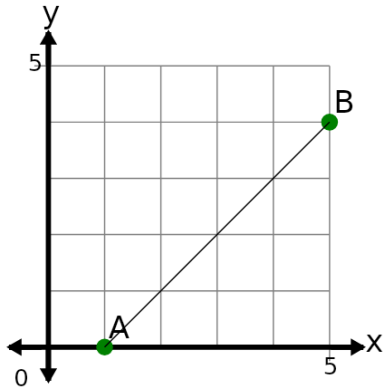
19 Which graph shows a line with a shallow negative slope?





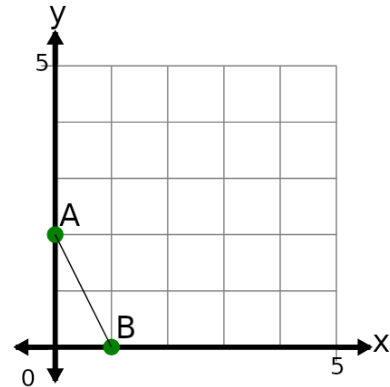
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- 20** Find the slope of the line between Point A and Point B given that Y increases by 4 and X increases by 4



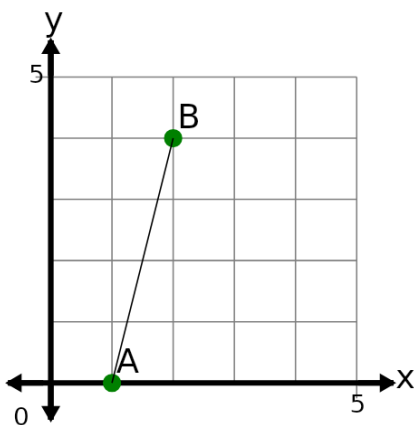
A	-0.2	B	0.8	C	-1
D	1.8	E	0.25	F	1

- 21** Find the slope of the line between Point A and Point B given that Y decreases by 2 and X increases by 1



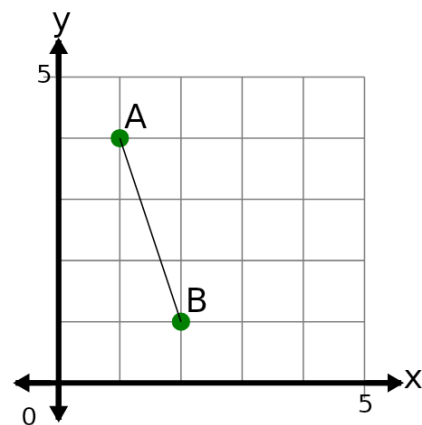
A	-2	B	0.5	C	-0.5
D	2	E	0	F	1.25

- 22** Find the slope of the line between Point A and Point B

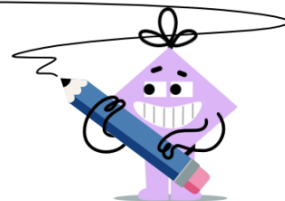


A	-1.6	B	4	C	11.2
D	0.25	E	-1.5	F	6.4

- 23** Find the slope of the line between Point A and Point B

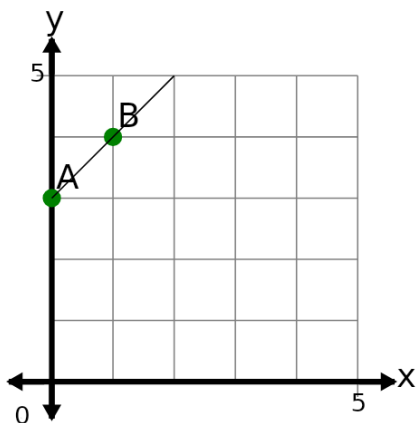


A	-3	B	-5.4	C	2.5
D	-7.8	E	1.5	F	-0.33



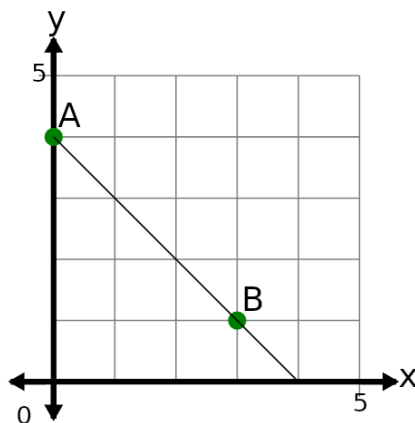
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24 Find the slope of the line between Point A and Point B



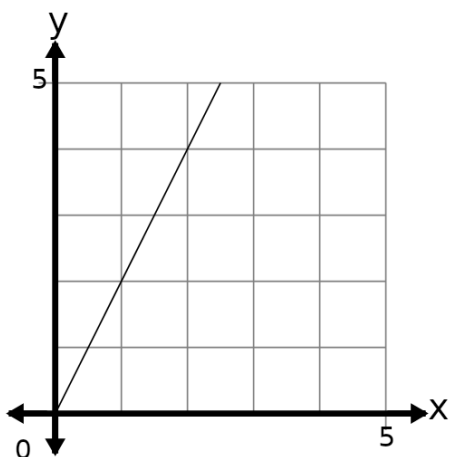
A	2.5	B	1	C	-2.5
D	2.2	E	0.2	F	0.5

25 Find the slope of the line between Point A and Point B



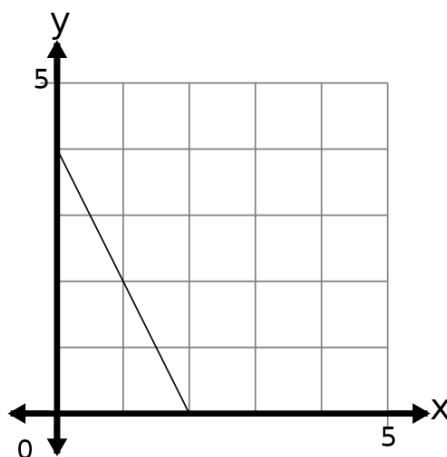
A	-2.2	B	0	C	-1
D	-0.6	E	1.25	F	-1.2

26 Find the slope of the line



A	-0.8	B	5.6	C	2
D	0.5	E	-1.25	F	3.2

27 Find the slope of the line

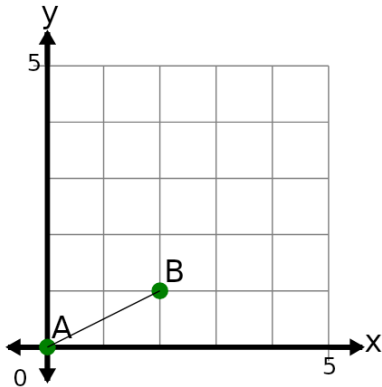


A	-4.8	B	-4	C	-0.5
D	-2	E	1	F	0.4



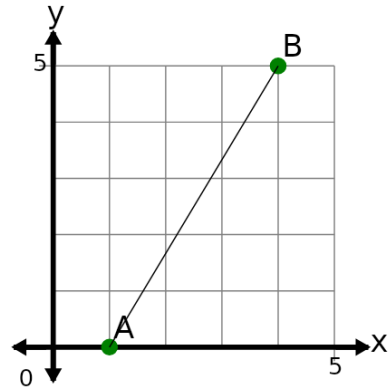
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28 Find the slope of the line between Point A and Point B given that Y increases by 1 and X increases by 2



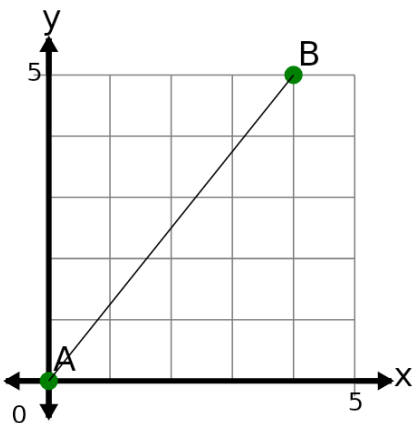
A	0	B	1.4	C	0.7
D	1	E	2	F	0.5

29 Find the slope of the line between Point A and Point B given that Y increases by 5 and X increases by 3



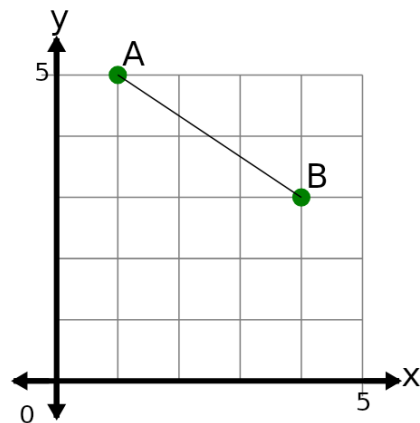
A	-0.67	B	2.5	C	2.33
D	1.67	E	0.6	F	-1.5

30 Find the slope of the line between Point A and Point B



A	3	B	2.5	C	0.8
D	1.25	E	1	F	-0.5

31 Find the slope of the line between Point A and Point B



A	-2.5	B	-1.5	C	-0.4
D	-0.13	E	-0.67	F	1.5



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32 What line equation would create this set of X, Y values?

X	Y
0	0
1	0.25
2	0.5
3	0.75
4	1

A $y = -4x$

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

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

33 What line equation would create this set of X, Y values?

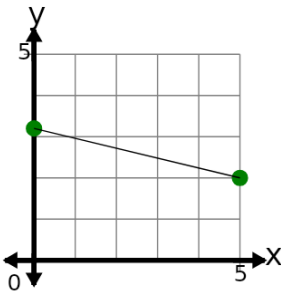
X	Y
0	1
1	2
2	3
3	4
4	5

A $y = 1x + 1$

B $y = -1x + 1$

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

34 What slope does the line on this graph have?



A $m = -0.2$

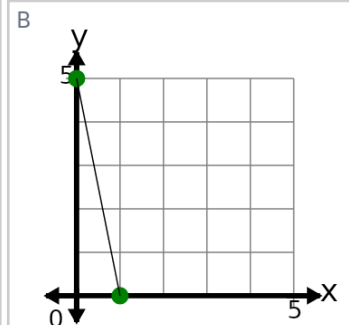
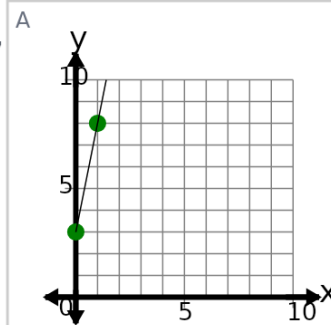
B $m = 0.2$

C $m = -5$

D $m = -0.1$

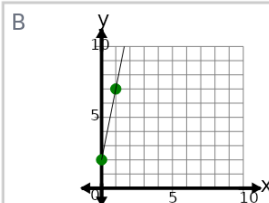
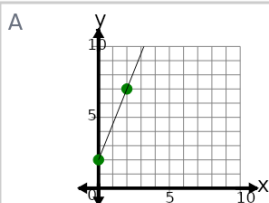
35 What graph shows this set of X, Y values?

X	Y
0	3
1	8
2	13
3	18
4	23



36 What line has this slope?

$m = 5$



37 What line equation would have this slope?

$m = 2$

A $y = -2x$

B $y = 2x$

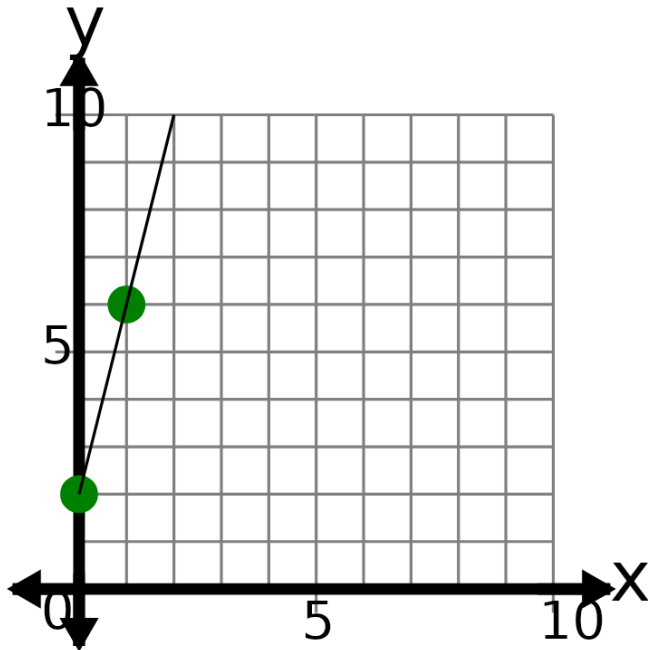
C $y = \frac{1}{2}x$

D $y = \frac{2}{2}x$



Line Equations and Graphing - Intro

38 What slope does the line on this graph have?



A

$$m = \frac{1}{4}$$

B

$$m = -4$$

C

$$m = \frac{4}{2}$$

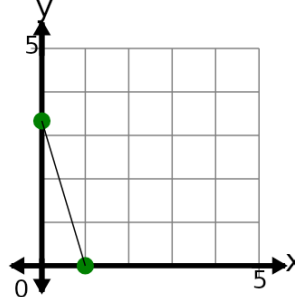
D

$$m = 4$$

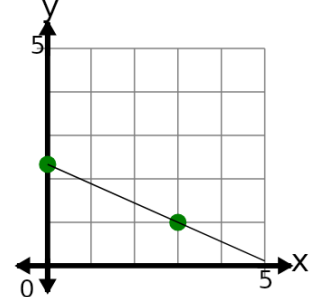
39 What line has this slope?

$$m = -\frac{1}{3}$$

A



B



40 What line equation would have this slope?

$$m = 1$$

A

$$y = -1x$$

B

$$y = 1x$$

C

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

41 What slope would this line equation have?

$$y = 2x$$

A

$$m = 0.5$$

B

$$m = 2$$

C

$$m = 1$$

D

$$m = -2$$



Line Equations and Graphing - Intro

42 What line equation would have this slope?

$$m = -4$$

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

B $y = 4x + 4$

C $y = -4x + 4$

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

43 What line equation would have this slope?

$$m = -4$$

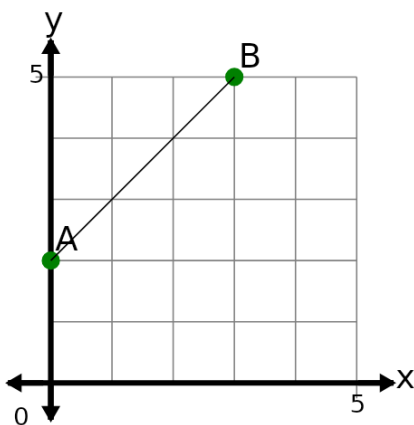
A $y = -\frac{1}{4}x + 4$

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

C $y = -4x + 4$

D $y = 4x + 4$

44 Find the slope of the line between Point A and Point B



A 0.8

B 1

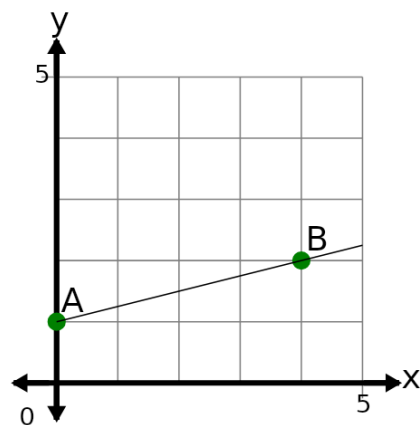
C 3

D -0.5

E 1.5

F 1.4

45 Find the slope of the line between Point A and Point B



A 0.35

B 2.5

C -2.25

D 4

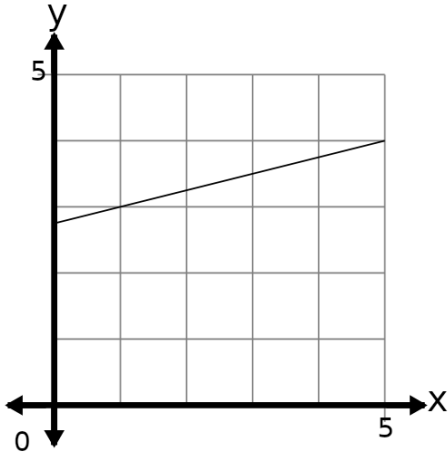
E -0.25

F 0.25



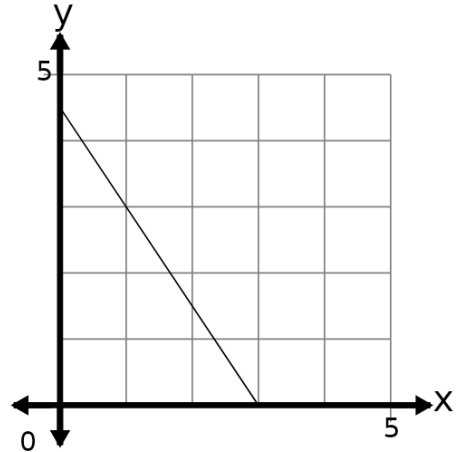
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46 Find the slope of the line



- | | | |
|-----------|-----------|-----------|
| A
0.3 | B
0.55 | C
0.25 |
| D
0.75 | E
0.1 | F
0 |

47 Find the slope of the line



- | | | |
|-----------|------------|-----------|
| A
-4.5 | B
-0.67 | C
-1.8 |
| D
-3 | E
0.9 | F
-1.5 |

48 Find the rise of the line (change in y) between the two (x, y) points

(5, 9) and (7, 10)

- | | | |
|----------|-----------|-----------|
| A
1.2 | B
1 | C
-0.2 |
| D
2 | E
-0.6 | F
-1 |

49 Find the rise of the line (change in y) between the two (x, y) points

(7, 0) and (5, 10)

- | | | |
|---------|----------|---------|
| A
24 | B
-10 | C
22 |
| D
26 | E
10 | F
-2 |

50 Find the run of the line (change in x) between the two (x, y) points

(2, 2) and (3, 6)

- | | | |
|----------|-----------|-----------|
| A
1.2 | B
4 | C
-0.4 |
| D
1 | E
-0.2 | F
1.4 |

51 Find the run of the line (change in x) between the two (x, y) points

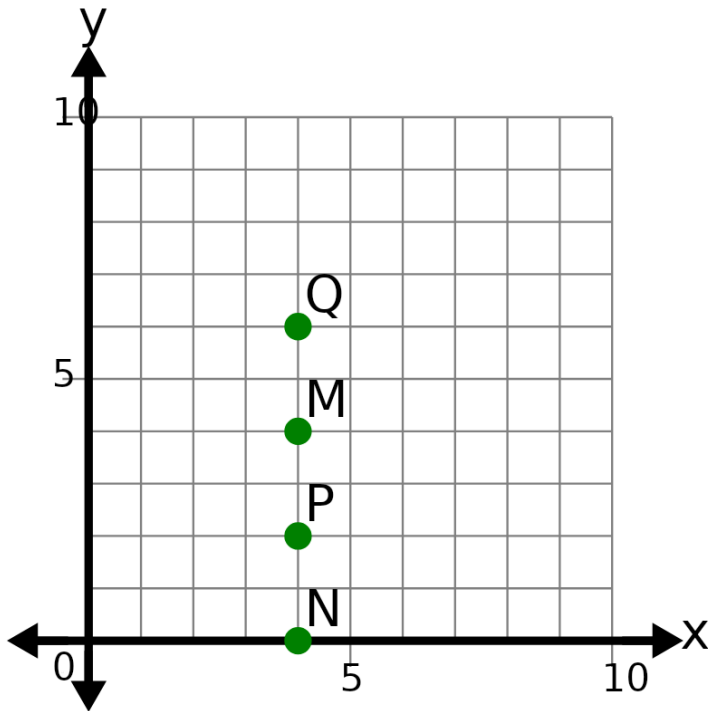
(7, 8) and (8, 8)

- | | | |
|-----------|---------|----------|
| A
-0.4 | B
1 | C
2.8 |
| D
-0.6 | E
-1 | F
3 |



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52 For the equation $y = 1x$, what point is at $x = 4$?



A

M

B

N

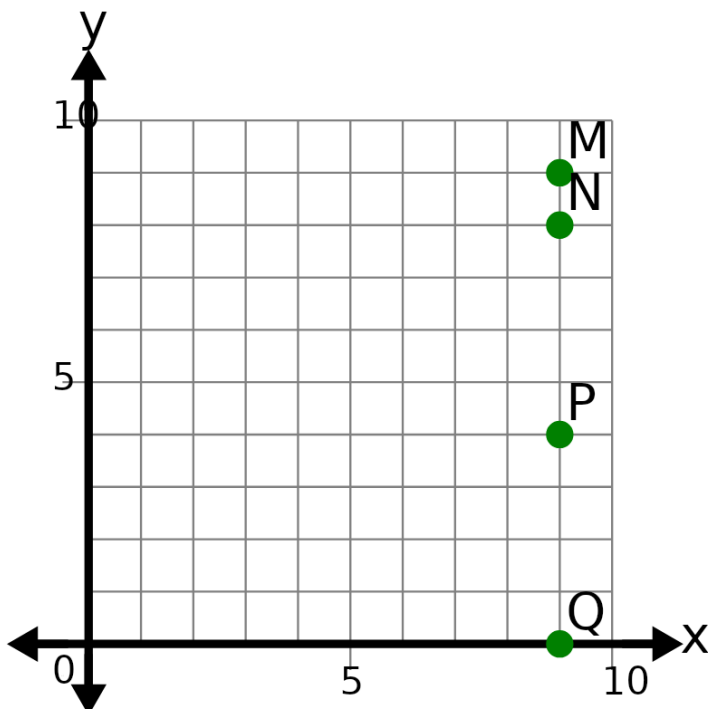
C

Q

D

P

53 For the equation $y = 1x - 0$, what point is at $x = 9$?



A

Q

B

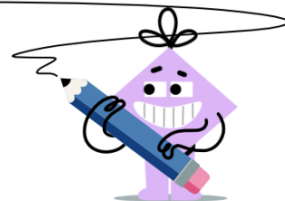
P

C

N

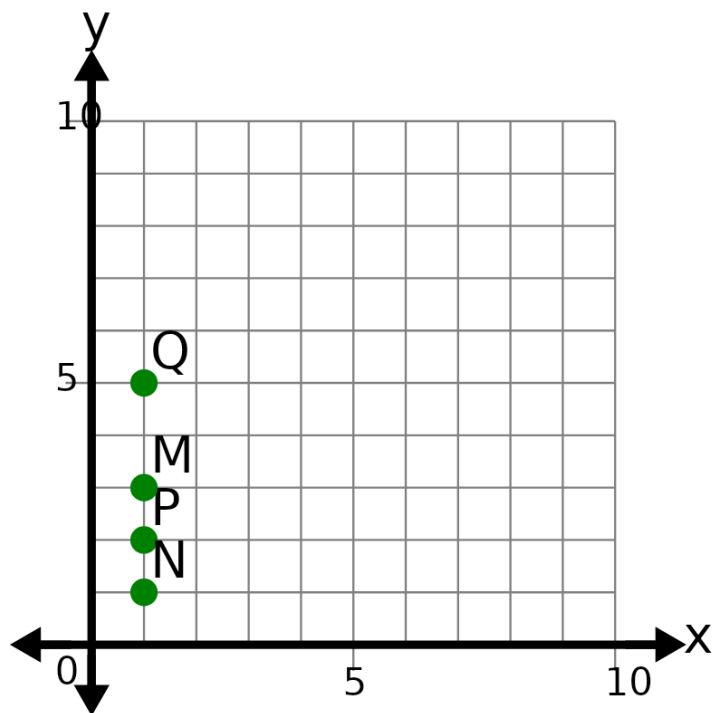
D

M



Line Equations and Graphing - Intro

54 For the equation $y = -3x + 5$, what point is at $x = 1$?



A

M

B

Q

C

P

D

N

55 What slope would this line equation have

$$y = 5x$$

A

$$m = 5$$

B

$$m = \frac{5}{2}$$

C

$$m = \frac{1}{5}$$

D

$$m = -5$$

56 What chart of X, Y values matches this line equation?

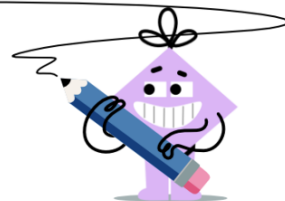
$$y = 4x$$

A

X	Y
0	0
1	4
2	8
3	12
4	16

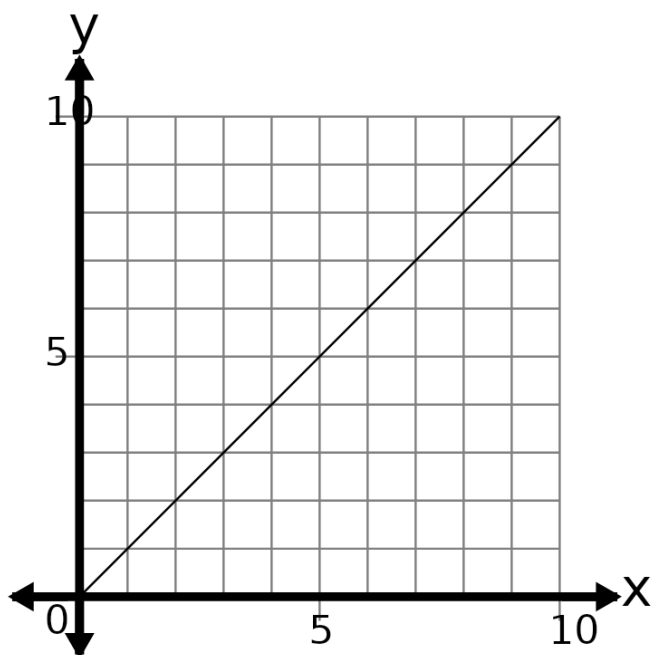
B

X	Y
0	0
1	-4
2	-8
3	-12
4	-16



Line Equations and Graphing - Intro

57 Select the equation that would result in the line shown with a slope of 1



A

$$y = 4x$$

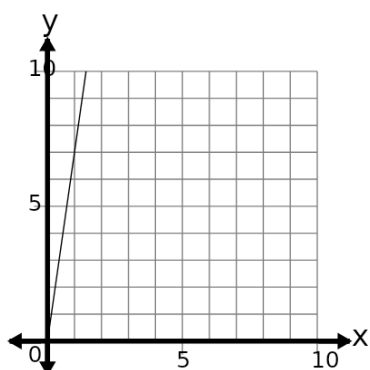
B

$$y = 1x$$

C

$$y = -1$$

58 Select the equation that would result in the line on the graph as shown



A $y = 8x + 3$

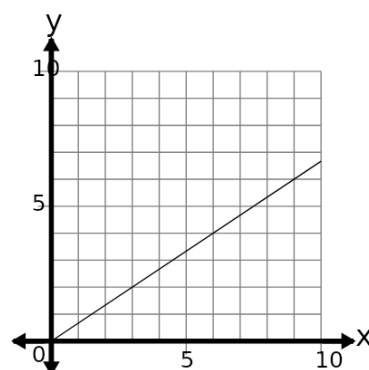
B $y = 8x - 3$

C $y = 7x$

D $y = 5x - 3$

E $y = 7x - 3$

59 Select the equation that would result in the line shown with a slope of 0.67



A $y = -0.83x - 1.5$

B $y = 0.17x$

C $y = 0.67x$

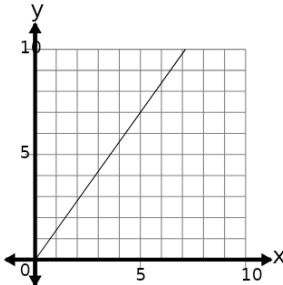
D $y = -1.83x - 1.5$

E $y = 1.17x + 1.5$



Line Equations and Graphing - Intro

60 Select the equation that would result in the line on the graph as shown



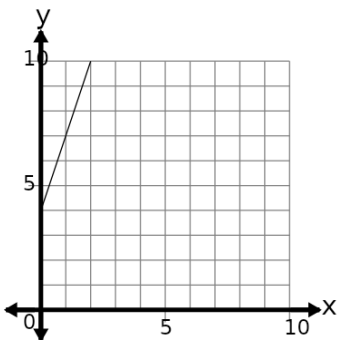
A $y = -0.1x - 1.5$

B $y = 1.4x$

C $y = 0.4x + 1.5$

D $y = 2.9x + 1.5$

61 Select the equation that would result in the line shown with a y-intercept of 4 and a slope of 3



A $y = 5x + 4$

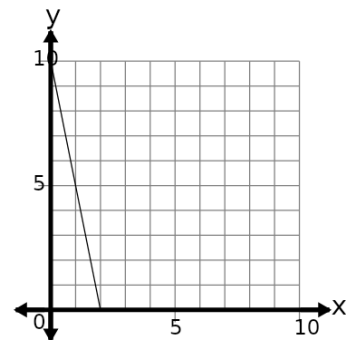
B $y = 1x + 1$

C $y = 3x + 7$

D $y = -2x + 7$

E $y = 3x + 4$

62 Select the equation that would result in the line shown with a y-intercept of 10 and a slope of -5



A $y = -10x + 7$

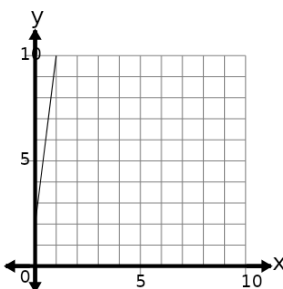
B $y = -10x + 5$

C $y = -1x + 13$

D $y = -2x + 13$

E $y = -5x + 10$

63 Select the equation that would result in the line on the graph as shown



A $y = 3x + 5$

B $y = -2x - 8$

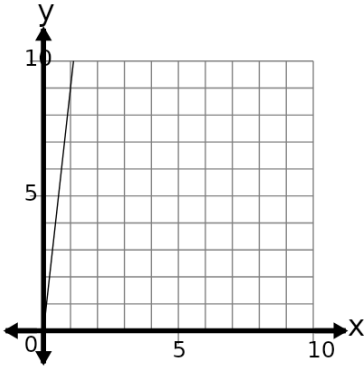
C $y = 5x + 5$

D $y = 8x + 2$



Line Equations and Graphing - Intro

- 64** Select the equation that would result in the line on the graph as shown



- | | | | |
|---|-----------|---|--------------|
| A | $y = 13x$ | B | $y = 8x$ |
| C | $y = 7x$ | D | $y = 4x + 3$ |
| E | $y = 9x$ | | |

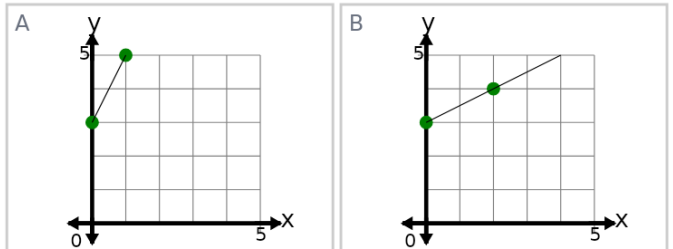
- 65** What slope would this line equation have?

$$y = -\frac{1}{2}x + 0.5$$

- | | | | |
|---|-------------|---|------------|
| A | $m = 0.5$ | B | $m = -2$ |
| C | $m = -0.25$ | D | $m = -0.5$ |

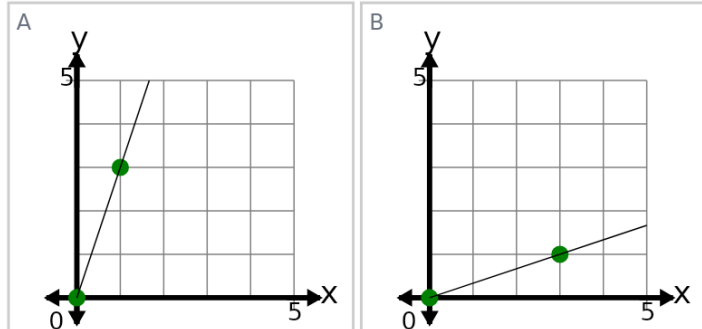
- 66** What graphed line shows this line equation?

$$y = 2x + 3$$



- 67** What graphed line shows this line equation?

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



- 68** What line equation in standard form would create this set of X, Y values?

X	Y
0	2
1	3
2	4
3	5
4	6

- | | |
|---|------------------|
| A | $-1x + 1y = 2$ |
| B | $1x + 1y = 2$ |
| C | $-0.5x + 1y = 2$ |

- 69** What line equation in standard form would have this slope?

$$m = -3$$

- | | |
|---|-----------------|
| A | $4.5x + 3y = 9$ |
| B | $3x + 1y = 3$ |
| C | $1x + 3y = 9$ |
| D | $-3x + 1y = 3$ |



Line Equations and Graphing - Intro

70 What slope would this line equation have

$$y = -\frac{1}{2}x + 3.5$$

A

$$m = \frac{2}{2}$$

B

$$m = -\frac{1}{2}$$

C

$$m = \frac{1}{2}$$

D

$$m = -2$$

71 What chart of X, Y values matches this line equation?

$$y = -\frac{1}{4}x + 3.25$$

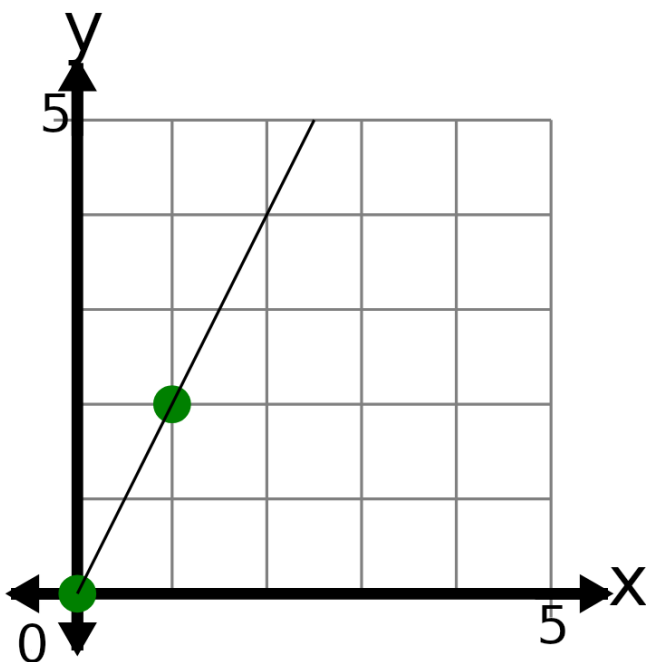
A

X	Y
0	3.25
1	3
2	2.75
3	2.5
4	2.25

B

X	Y
0	3.25
1	-0.75
2	-4.75
3	-8.75
4	-12.75

72 What line equation would create the line on this graph?



A

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

B

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

C

$$y = 2x$$

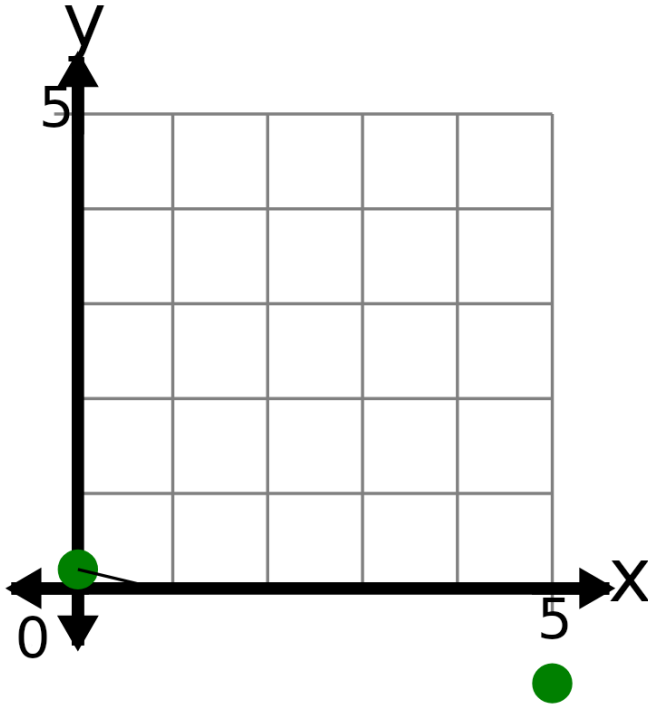
D

$$y = -2x$$



Line Equations and Graphing - Intro

73 What line equation would create the line on this graph?



A

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

B

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

C

$$y = -5x + 0.2$$

D

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

74 Find the y intercept of this function by setting x to zero and solving

$$y = -3x - 0$$

A

0

B

-4

C

2

D

4

E

1

F

-5

75 Find the y intercept of this function

$$y = 1x - 6$$

A

-15

B

-9

C

-8

D

-6

E

-3

F

2

76 What line equation in standard form would have this slope?

$$m = 1$$

A

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

B

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

C

$$-1x + 2y = 2$$

D

$$1x + 1y = 1$$

77 Find the x intercept of this function by setting y to zero and solving

$$y = -2x - 2$$

A

-11

B

-10

C

-1

D

-2

E

-9

F

-5



Line Equations and Graphing - Intro

78 What line equation in standard form would be equivalent to this line equation?

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

A

$$-0.2x + 1y = 0$$

B

$$-0.1x + 1y = 0$$

C

$$0.2x + 1y = 0$$

D

$$-5x + 1y = 0$$

79 Find the y intercept of this function

$$y = 2x - 4$$

A

-10

B

-2

C

-5

D

-1

E

2

F

-4

80 Find the x intercept of this function

$$y = -4x - 8$$

A

-1

B

-2

C

-8

D

7

E

-11

F

-3