

Question ID ec0d8652

Assessment	Test	Domain	Skill	Difficulty
PSAT/NMSQT & PSAT 10	Math	Algebra	Linear equations in two variables	<div><div></div><div></div><div></div></div>

ID: ec0d8652

What is the y-intercept of the graph of $y = 34x + 81$ in the xy-plane?

- A. $(0, 81)$
- B. $(0, 34)$
- C. $(0, -34)$
- D. $(0, -81)$

Question ID 19014c22

Assessment	Test	Domain	Skill	Difficulty
PSAT/NMSQT & PSAT 10	Math	Algebra	Linear equations in two variables	<div><div></div><div></div><div></div></div>

ID: 19014c22

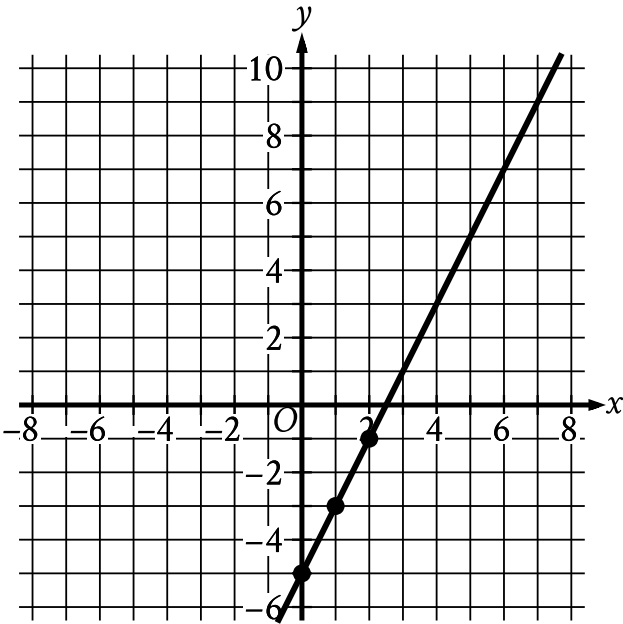
Line k is defined by $y = 3x + 15$. Line j is perpendicular to line k in the xy -plane. What is the slope of line j ?

- A. $-\frac{1}{3}$
- B. $-\frac{1}{12}$
- C. $-\frac{1}{18}$
- D. $-\frac{1}{45}$

Question ID 55614835

Assessment	Test	Domain	Skill	Difficulty
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ID: 55614835



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The graph shows the linear relationship between x and y . Which table gives three values of x and their corresponding values of y for this relationship?

A.

x	y
0	0
1	-7
2	-9

B.

x	y
0	0
1	-3
2	-1

C.

x	y
0	-5

1	−7
2	−9

D.

x	y
0	−5
1	−3
2	−1

Question ID bc62c9b6

Assessment	Test	Domain	Skill	Difficulty
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ID: bc62c9b6

For a camping trip a group bought x one-liter bottles of water and y three-liter bottles of water, for a total of **240** liters of water. Which equation represents this situation?

- A. $x + 3y = 240$
- B. $x + y = 240$
- C. $3x + 3y = 240$
- D. $3x + y = 240$

Question ID 3f2e31bd

Assessment	Test	Domain	Skill	Difficulty
PSAT/NMSQT & PSAT 10	Math	Algebra	Linear equations in two variables	<div><div></div><div></div><div></div></div>

ID: 3f2e31bd

Line r in the xy -plane has a slope of 4 and passes through the point $(0, 6)$. Which equation defines line r ?

- A. $y = -6x + 4$
- B. $y = 6x + 4$
- C. $y = 4x - 6$
- D. $y = 4x + 6$

Question ID 843533bc

Assessment	Test	Domain	Skill	Difficulty
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ID: 843533bc

$y = x + 4$

Which table gives three values of x and their corresponding values of y for the given equation?

A.

x	y
0	4
1	5
2	6

B.

x	y
0	6
1	5
2	4

C.

x	y
0	2
1	1
2	0

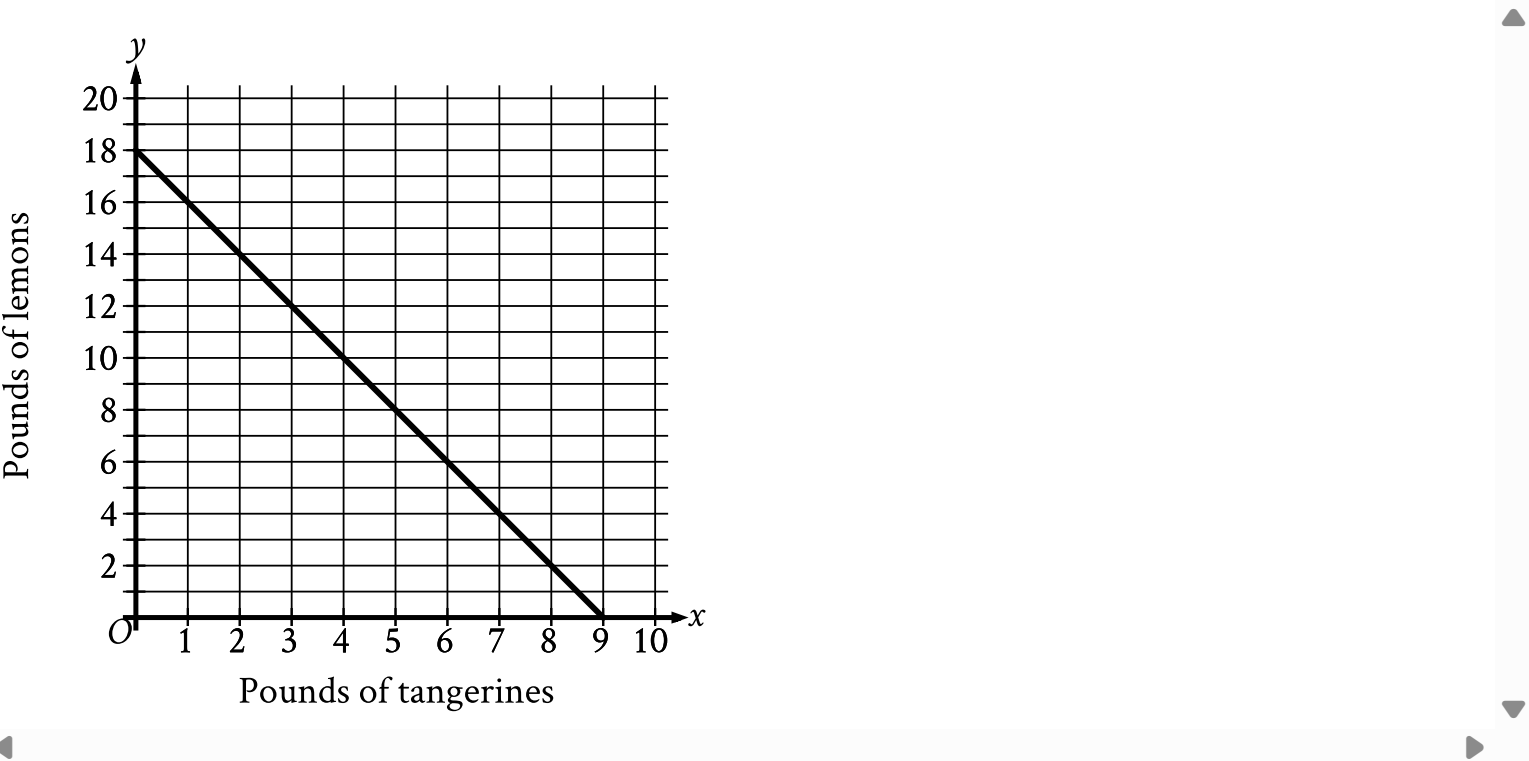
D.

x	y
0	0
1	1
2	2

Question ID f355fc06

Assessment	Test	Domain	Skill	Difficulty
PSAT/NMSQT & PSAT 10	Math	Algebra	Linear equations in two variables	<div><div></div><div></div><div></div></div>

ID: f355fc06



The graph shows the possible combinations of the number of pounds of tangerines and lemons that could be purchased for \$18 at a certain store. If Melvin purchased lemons and 4 pounds of tangerines for a total of \$18, how many pounds of lemons did he purchase?

- A. 7
- B. 10
- C. 14
- D. 16

Question ID d5a53f84

Assessment	Test	Domain	Skill	Difficulty
PSAT/NMSQT & PSAT 10	Math	Algebra	Linear equations in two variables	<div><div></div><div></div><div></div></div>

ID: d5a53f84

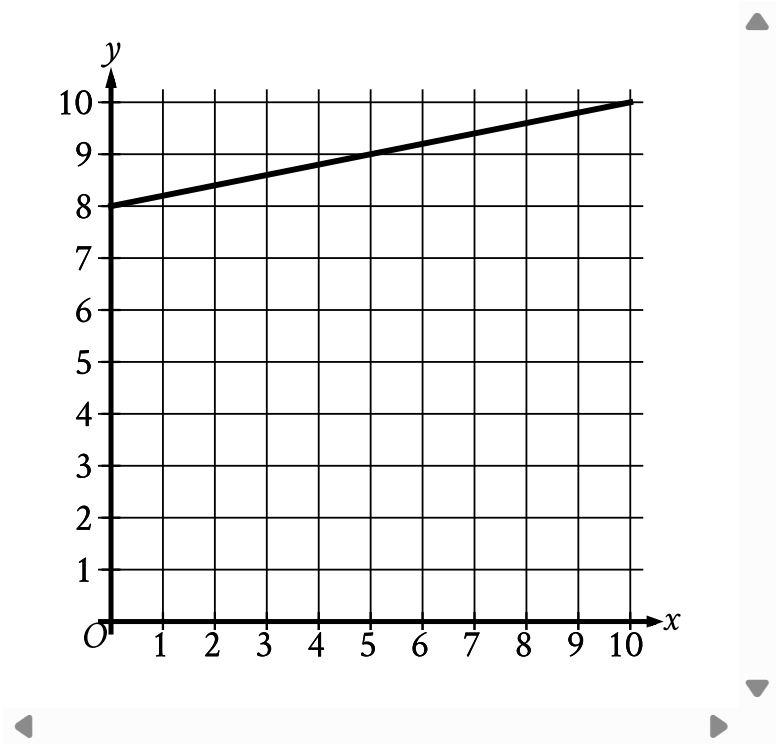
A food truck buys forks for ~~\$0.04~~ each and plates for ~~\$0.48~~ each. The total cost of *x* forks and *y* plates is ~~\$661.76~~. Which equation represents this situation?

- A. $0.48x - 0.04y = 661.76$
- B. $0.04x - 0.48y = 661.76$
- C. $0.48x + 0.04y = 661.76$
- D. $0.04x + 0.48y = 661.76$

Question ID 176d7796

Assessment	Test	Domain	Skill	Difficulty
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ID: 176d7796



What is the y-intercept of the line graphed?

- A. $(0, -8)$
- B. $(0, -\frac{1}{8})$
- C. $(0, 0)$
- D. $(0, 8)$

Question ID 8b6409ac

Assessment	Test	Domain	Skill	Difficulty
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ID: 8b6409ac

A mixture consisting of only vitamin D and calcium has a total mass of **150** grams. The mass of vitamin D in the mixture is **50** grams. What is the mass, in grams, of calcium in the mixture?

- A. **200**
- B. **150**
- C. **100**
- D. **50**

Question ID aae8b8c7

Assessment	Test	Domain	Skill	Difficulty
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ID: aae8b8c7

A shipment consists of **5**-pound boxes and **10**-pound boxes with a total weight of **220** pounds. There are **13** **10**-pound boxes in the shipment. How many **5**-pound boxes are in the shipment?

- A. **5**
- B. **10**
- C. **13**
- D. **18**

Question ID 57622fc3

Assessment	Test	Domain	Skill	Difficulty
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ID: 57622fc3

The equation $x + y = 1,440$ represents the number of minutes of daylight (between sunrise and sunset), x , and the number of minutes of non-daylight, y , on a particular day in Oak Park, Illinois. If this day has **670** minutes of daylight, how many minutes of non-daylight does it have?

- A. **670**
- B. **770**
- C. **1,373**
- D. **1,440**

Question ID f3e46b78

Assessment	Test	Domain	Skill	Difficulty
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ID: f3e46b78

$y = 70x + 8$

Which table gives three values of x and their corresponding values of y for the given equation?

A.

x	y
0	8
2	148
4	288

B.

x	y
0	70
2	78
4	86

C.

x	y
0	70
2	140
4	280

D.

x	y
0	8
2	132
4	272

Question ID e3672617

Assessment	Test	Domain	Skill	Difficulty
PSAT/NMSQT & PSAT 10	Math	Algebra	Linear equations in two variables	<div><div></div><div></div><div></div></div>

ID: e3672617

The equation $46 = 2a + 2b$ gives the relationship between the side lengths a and b of a certain parallelogram. If $a = 9$, what is the value of b ?

Question ID 9b145590

Assessment	Test	Domain	Skill	Difficulty
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ID: 9b145590

An employee at a restaurant prepares sandwiches and salads. It takes the employee **1.5** minutes to prepare a sandwich and **1.9** minutes to prepare a salad. The employee spends a total of **46.1** minutes preparing *x* sandwiches and *y* salads. Which equation represents this situation?

- A. $1.9x + 1.5y = 46.1$
- B. $1.5x + 1.9y = 46.1$
- C. $x + y = 46.1$
- D. $30.7x + 24.3y = 46.1$

Question ID b1916547

Assessment	Test	Domain	Skill	Difficulty
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ID: b1916547

$y = -4x + 40$

Which table gives three values of x and their corresponding values of y for the given equation?

A.

x	y
0	0
1	-4
2	-8

B.

x	y
0	40
1	44
2	48

C.

x	y
0	40
1	36
2	32

D.

x	y
0	0
1	4
2	8

Question ID 4fc5a7d2

Assessment	Test	Domain	Skill	Difficulty
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ID: 4fc5a7d2

A line in the xy -plane has a slope of $-\frac{1}{2}$ and passes through the point $(0, 3)$. Which equation represents this line?

- A. $y = -\frac{1}{2}x - 3$
- B. $y = -\frac{1}{2}x + 3$
- C. $y = \frac{1}{2}x - 3$
- D. $y = \frac{1}{2}x + 3$

Question ID dd181f54

Assessment	Test	Domain	Skill	Difficulty
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ID: dd181f54

Naomi bought both rabbit snails and nerite snails for a total of **\$52**. Each rabbit snail costs **\$8** and each nerite snail costs **\$6**. If Naomi bought **2** nerite snails, how many rabbit snails did she buy?

- A. **5**
- B. **12**
- C. **14**
- D. **50**

Question ID b32ff819

Assessment	Test	Domain	Skill	Difficulty
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ID: b32ff819

A total of **364** paper straws of equal length were used to construct two types of polygons: triangles and rectangles. The triangles and rectangles were constructed so that no two polygons had a common side. The equation $3x + 4y = 364$ represents this situation, where x is the number of triangles constructed and y is the number of rectangles constructed. What is the best interpretation of $(x, y) = (24, 73)$ in this context?

- A. If **24** triangles were constructed, then **73** rectangles were constructed.
- B. If **24** triangles were constructed, then **73** paper straws were used.
- C. If **73** triangles were constructed, then **24** rectangles were constructed.
- D. If **73** triangles were constructed, then **24** paper straws were used.