

Question ID 5e8699ad

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: 5e8699ad

Jay walks at a speed of **3** miles per hour and runs at a speed of **5** miles per hour. He walks for *w* hours and runs for *r* hours for a combined total of **14** miles. Which equation represents this situation?

- A. $3w + 5r = 14$
- B. $\frac{1}{3}w + \frac{1}{5}r = 14$
- C. $\frac{1}{3}w + \frac{1}{5}r = 112$
- D. $3w + 5r = 112$

Question ID ac02dad2

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: ac02dad2

$$2x + y = 37$$

In triangle QRS , sides QR and RS each have a length of x centimeters and side SQ has a length of y centimeters. The given equation represents this situation. Which of the following is the best interpretation of 37 in this context?

- A. The difference, in centimeters, between the lengths of sides QR and SQ
- B. The difference, in centimeters, between the lengths of sides QR and RS
- C. The sum of the lengths, in centimeters, of the three sides of the triangle
- D. The length, in centimeters, of one of the two sides of equal length

Question ID bd243919

Assessment	Test	Domain	Skill	Difficulty
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ID: bd243919

The equation $40x + 20y = 160$ represents the number of sweaters, x , and number of shirts, y , that Yesenia purchased for \$160. If Yesenia purchased 2 sweaters, how many shirts did she purchase?

- A. 3
- B. 4
- C. 8
- D. 40

Question ID 304668b4

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

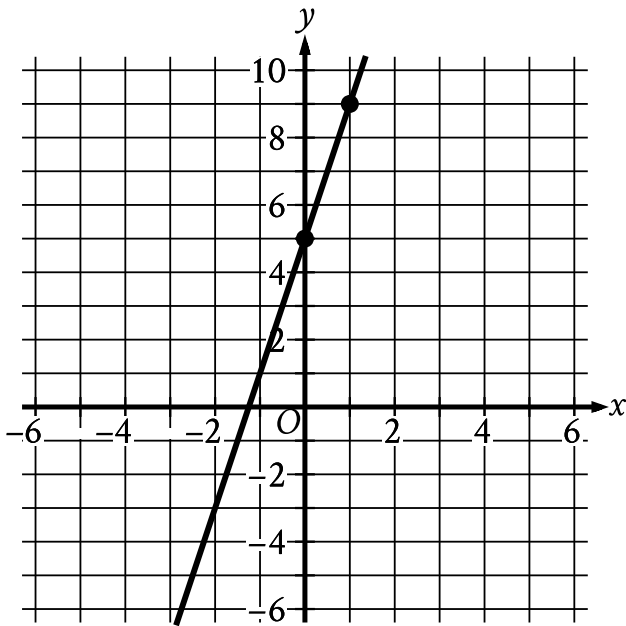
ID: 304668b4

What is the slope of the graph of $y = \frac{5x}{13} - 23$ in the xy-plane?

Question ID 143330a1

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: 143330a1



Line j is shown in the xy -plane. Line k (not shown) is parallel to line j . What is the slope of line k ?

Question ID 42258aab

Assessment	Test	Domain	Skill	Difficulty
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ID: 42258aab

The y-intercept of the graph of $12x + 2y = 18$ in the xy -plane is $(0, y)$. What is the value of y ?

Question ID 144d0888

Assessment	Test	Domain	Skill	Difficulty
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ID: 144d0888

The y-intercept of the graph of $y = -6x - 32$ in the xy -plane is $(0, y)$. What is the value of y ?

Question ID 805354f5

Assessment	Test	Domain	Skill	Difficulty
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ID: 805354f5

Line k is defined by $y = \frac{1}{4}x + 1$. Line j is parallel to line k in the xy -plane. What is the slope of j ?

Question ID 374cb937

Assessment	Test	Domain	Skill	Difficulty
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ID: 374cb937

Last week, an interior designer earned a total of **\$1,258** from consulting for x hours and drawing up plans for y hours. The equation $68x + 85y = 1,258$ represents this situation. Which of the following is the best interpretation of **68** in this context?

- A. The interior designer earned **\$68** per hour consulting last week.
- B. The interior designer worked **68** hours drawing up plans last week.
- C. The interior designer earned **\$68** per hour drawing up plans last week.
- D. The interior designer worked **68** hours consulting last week.

Question ID 79d9c537

Assessment	Test	Domain	Skill	Difficulty
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ID: 79d9c537

A teacher is creating an assignment worth **70** points. The assignment will consist of questions worth **1** point and questions worth **3** points. Which equation represents this situation, where ***x*** represents the number of **1**-point questions and ***y*** represents the number of **3**-point questions?

- A. **$4xy = 70$**
- B. **$4(x + y) = 70$**
- C. **$3x + y = 70$**
- D. **$x + 3y = 70$**

Question ID 07cab4f0

Assessment	Test	Domain	Skill	Difficulty
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ID: 07cab4f0

A store sells two different-sized containers of a certain Greek yogurt. The store’s sales of this Greek yogurt totaled **1,277.94** dollars last month. The equation **$5.48x + 7.30y = 1,277.94$** represents this situation, where **x** is the number of smaller containers sold and **y** is the number of larger containers sold. According to the equation, which of the following represents the price, in dollars, of each smaller container?

- A. **5.48**
- B. **$7.30y$**
- C. **7.30**
- D. **$5.48x$**

Question ID a854ff94

Assessment	Test	Domain	Skill	Difficulty
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ID: a854ff94

$2.5b + 5r = 80$

The given equation describes the relationship between the number of birds, b , and the number of reptiles, r , that can be cared for at a pet care business on a given day. If the business cares for **16** reptiles on a given day, how many birds can it care for on this day?

- A. **0**
- B. **5**
- C. **40**
- D. **80**

Question ID 09f4035b

Assessment	Test	Domain	Skill	Difficulty
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ID: 09f4035b

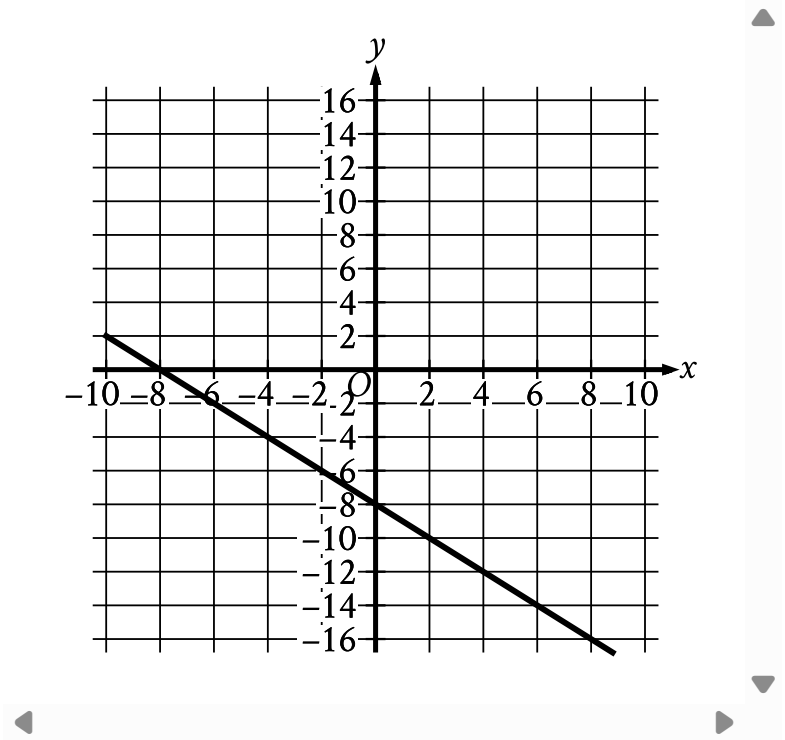
Davio bought some potatoes and celery. The potatoes cost ~~\$0.69~~ per pound, and the celery cost ~~\$0.99~~ per pound. If Davio spent ~~\$5.34~~ in total and bought twice as many pounds of celery as pounds of potatoes, how many pounds of celery did Davio buy?

- A. ~~2~~
- B. ~~2.5~~
- C. ~~2.67~~
- D. ~~4~~

Question ID ea3f862c

Assessment	Test	Domain	Skill	Difficulty
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ID: ea3f862c



What is an equation of the graph shown?

- A. $y = -2x - 8$
- B. $y = x - 8$
- C. $y = -x - 8$
- D. $y = 2x - 8$

Question ID d4915b30

Assessment	Test	Domain	Skill	Difficulty
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ID: d4915b30

In the xy -plane, line t passes through the points $(0, 9)$ and $(1, 17)$. Which equation defines line t ?

- A. $y = \frac{1}{8}x + 9$
- B. $y = x + \frac{1}{8}$
- C. $y = x + 8$
- D. $y = 8x + 9$

Question ID ec9fddca

Assessment	Test	Domain	Skill	Difficulty
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ID: ec9fddca

Line t in the xy -plane has a slope of $-\frac{1}{3}$ and passes through the point $(9, 10)$. Which equation defines line t ?

- A. $y = 13x - \frac{1}{3}$
- B. $y = 9x + 10$
- C. $y = -\frac{x}{3} + 10$
- D. $y = -\frac{x}{3} + 13$

Question ID 26c46450

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: 26c46450

A line in the xy -plane has a slope of $\frac{1}{9}$ and passes through the point $(0, 14)$. Which equation represents this line?

- A. $y = -\frac{1}{9}x - 14$
- B. $y = -\frac{1}{9}x + 14$
- C. $y = \frac{1}{9}x - 14$
- D. $y = \frac{1}{9}x + 14$

Question ID 3b0116a2

Assessment	Test	Domain	Skill	Difficulty
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ID: 3b0116a2

A machine makes large boxes or small boxes, one at a time, for a total of **700** minutes each day. It takes the machine **10** minutes to make a large box or **5** minutes to make a small box. Which equation represents the possible number of large boxes, x , and small boxes, y , the machine can make each day?

- A. $5x + 10y = 700$
- B. $10x + 5y = 700$
- C. $(x + y)(10 + 5) = 700$
- D. $(10 + x)(5 + y) = 700$

Question ID 1d1e6588

Assessment	Test	Domain	Skill	Difficulty
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ID: 1d1e6588

The equation $46 = 2x + 2y$ gives the perimeter of a rectangular rug that has length x , in feet, and width y , in feet. The width of the rug is 8 feet. What is the length, in feet, of the rug?

Question ID 862cc556

Assessment	Test	Domain	Skill	Difficulty
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ID: 862cc556

x	1	2	3
y	11	16	21

The table shows three values of x and their corresponding values of y . Which equation represents the linear relationship between x and y ?

- A. $y = 5x + 6$
- B. $y = 5x + 11$
- C. $y = 6x + 5$
- D. $y = 6x + 11$

Question ID be8e1f90

Assessment	Test	Domain	Skill	Difficulty
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ID: be8e1f90

Vivian bought party hats and cupcakes for **\$71**. Each package of party hats cost **\$3**, and each cupcake cost **\$1**. If Vivian bought **10** packages of party hats, how many cupcakes did she buy?

Question ID f707b663

Assessment	Test	Domain	Skill	Difficulty
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ID: f707b663

x	y
0	18
1	13
2	8

The table shows three values of x and their corresponding values of y . There is a linear relationship between x and y . Which of the following equations represents this relationship?

- A. $y = 18x + 13$
- B. $y = 18x + 18$
- C. $y = -5x + 13$
- D. $y = -5x + 18$

Question ID a75d2a8c

Assessment	Test	Domain	Skill	Difficulty
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ID: a75d2a8c

What is the equation of the line that passes through the point $(0, 5)$ and is parallel to the graph of $y = 7x + 4$ in the xy -plane?

- A. $y = 5x$
- B. $y = 7x + 5$
- C. $y = 7x$
- D. $y = 5x + 7$

Question ID 244273dd

Assessment	Test	Domain	Skill	Difficulty
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ID: 244273dd

In the xy -plane, line k passes through the points $(0, -5)$ and $(1, -1)$. Which equation defines line k ?

- A. $y = -x + \frac{1}{4}$
- B. $y = \frac{1}{4}x - 5$
- C. $y = -x + 4$
- D. $y = 4x - 5$