

Question ID 479fcded

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Algebra	Linear equations in two variables	<div><div></div><div></div><div></div></div>

ID: 479fcded

x	y
-6	$n + 184$
-3	$n + 92$
0	n

The table shows three values of x and their corresponding values of y , where n is a constant, for the linear relationship between x and y . What is the slope of the line that represents this relationship in the xy -plane?

- A. $-\frac{92}{3}$
- B. $-\frac{3}{92}$
- C. $\frac{n+92}{-3}$
- D. $\frac{2n-92}{3}$

Question ID fd80013a

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Algebra	Linear equations in two variables	<div><div></div><div></div><div></div></div>

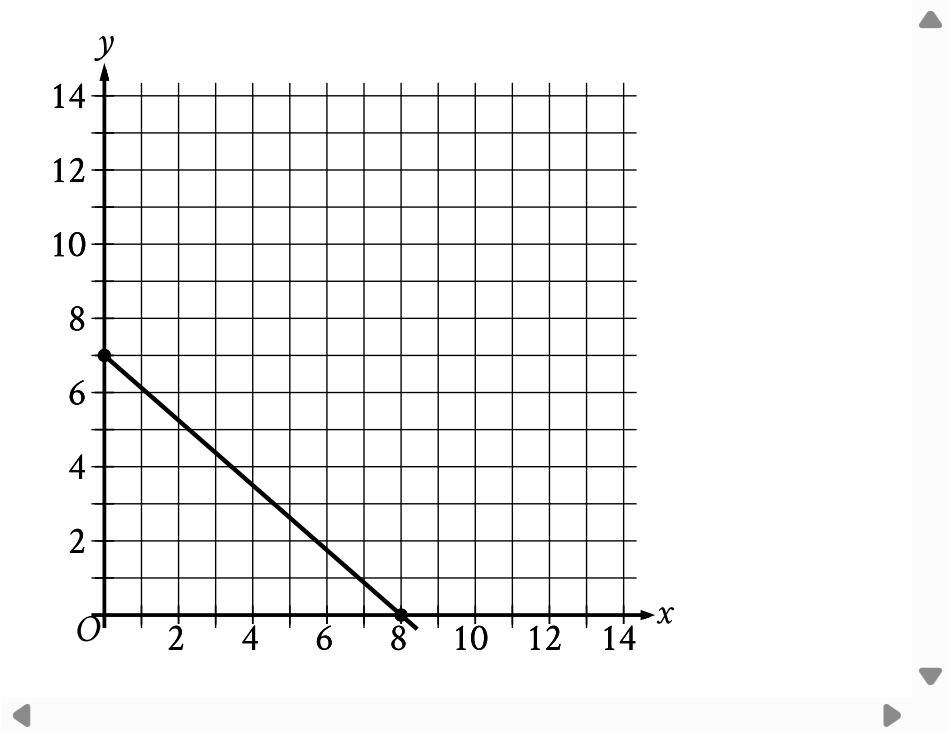
ID: fd80013a

In the xy -plane, line ℓ passes through the point $(0, 0)$ and is parallel to the line represented by the equation $y = 8x + 2$. If line ℓ also passes through the point $(3, d)$, what is the value of d ?

Question ID 672d125f

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Algebra	Linear equations in two variables	<div></div> <div></div> <div></div>

ID: 672d125f



The point with coordinates $(d, 4)$ lies on the line shown. What is the value of d ?

- A. $\frac{7}{2}$
- B. $\frac{26}{7}$
- C. $\frac{24}{7}$
- D. $\frac{27}{8}$

Question ID 57a15ca6

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Algebra	Linear equations in two variables	<div><div></div><div></div><div></div></div>

ID: 57a15ca6

What is the slope of the graph of $10x - 5y = -12$ in the xy -plane?

- A. -2
- B. $-\frac{5}{6}$
- C. $\frac{5}{6}$
- D. 2

Question ID cacf0929

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Algebra	Linear equations in two variables	<div><div></div><div></div><div></div></div>

ID: cacf0929

What is the slope of the graph of $y = \frac{1}{4}(27x + 15) + 7x$ in the xy -plane?

Question ID 8aa7b0ea

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Algebra	Linear equations in two variables	<div><div></div><div></div><div></div></div>

ID: 8aa7b0ea

x	y
k	13
$k + 7$	-15



The table gives the coordinates of two points on a line in the xy -plane. The y -intercept of the line is $(k - 5, b)$, where k and b are constants. What is the value of b ?

Question ID 82ba8114

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Algebra	Linear equations in two variables	<div><div></div><div></div><div></div></div>

ID: 82ba8114

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 e2c015ca

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Algebra	Linear equations in two variables	<div><div></div><div></div><div></div></div>

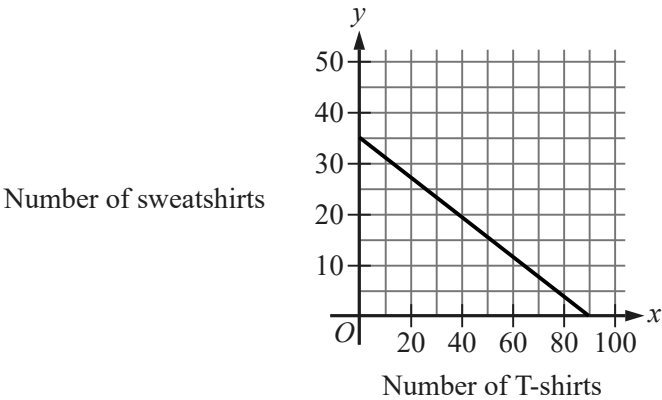
ID: e2c015ca

The equation $7g + 7b = 840$ represents the number of blue tiles, b , and the number of green tiles, g , an artist needs for an 840-square-inch tile project. The artist needs 71 blue tiles for the project. How many green tiles does he need?

Question ID 891af74b

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Algebra	Linear equations in two variables	<div></div> <div></div> <div></div>

ID: 891af74b



The graph models the relationship between the number of T-shirts, x , and the number of sweatshirts, y , that Kira can purchase for a school fundraiser. Which equation could represent this relationship?

- A. $y = 7x + 18$
- B. $7x + 18y = 630$
- C. $y = 18x + 7$
- D. $18x + 7y = 630$

Question ID b17dc88e

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Algebra	Linear equations in two variables	<div><div></div><div></div><div></div></div>

ID: b17dc88e

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 6d6d2d18

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Algebra	Linear equations in two variables	<div><div></div><div></div><div></div></div>

ID: 6d6d2d18

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

Question ID 9737fa47

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Algebra	Linear equations in two variables	<div><div></div><div></div><div></div></div>

ID: 9737fa47

A line in the xy -plane has a slope of 9 and passes through the point $(0, -5)$. The equation $y = px + r$ defines the line, where p and r are constants. What is the value of p ?

Question ID c875e2b1

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Algebra	Linear equations in two variables	<div><div></div><div></div><div></div></div>

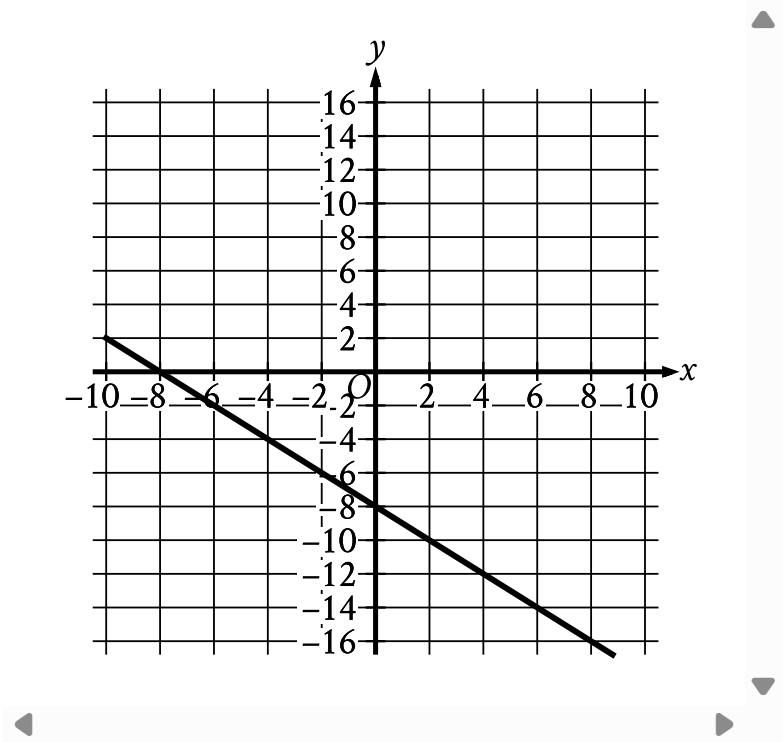
ID: c875e2b1

A certain apprentice has enrolled in **85** hours of training courses. The equation **$10x + 15y = 85$** represents this situation, where **x** is the number of on-site training courses and **y** is the number of online training courses this apprentice has enrolled in. How many more hours does each online training course take than each on-site training course?

Question ID 992040e7

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Algebra	Linear equations in two variables	<div><div></div><div></div><div></div></div>

ID: 992040e7



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 83237209

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Algebra	Linear equations in two variables	<div><div></div><div></div><div></div></div>

ID: 83237209

A store sells two different-sized containers of blueberries. The store’s sales of these blueberries totaled **896.86** dollars last month. The equation **$4.51x + 6.07y = 896.86$** 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, what is the price, in dollars, of each smaller container?

Question ID a7bd2179

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Algebra	Linear equations in two variables	<div><div></div><div></div><div></div></div>

ID: a7bd2179

x	y
$-2s$	24
$-s$	21
s	15

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

- A. $sx + 3y = 18s$
- B. $3x + sy = 18s$
- C. $3x + sy = 18$
- D. $sx + 3y = 18$

Question ID 007254a7

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Algebra	Linear equations in two variables	<div><div></div><div></div><div></div></div>

ID: 007254a7

A line passes through the points $(4, 6)$ and $(15, 24)$ in the xy -plane. What is the slope of the line?

Question ID d1db7318

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Algebra	Linear equations in two variables	<div><div></div><div></div><div></div></div>

ID: d1db7318

Line ℓ is defined by $3y + 12x = 5$. Line n is perpendicular to line ℓ in the xy -plane. What is the slope of line n ?

Question ID 37a6c2a9

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Algebra	Linear equations in two variables	<div><div></div><div></div><div></div></div>

ID: 37a6c2a9

The graph of $9x - 10y = 19$ is translated down 4 units in the xy -plane. What is the x -coordinate of the x -intercept of the resulting graph?

Question ID d149d565

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Algebra	Linear equations in two variables	<div><div></div><div></div><div></div></div>

ID: d149d565

Line h is defined by $\frac{1}{5}x + \frac{1}{7}y - 70 = 0$. Line j is perpendicular to line h in the xy -plane. What is the slope of line j ?

- A. $-\frac{7}{5}$
- B. $-\frac{5}{7}$
- C. $\frac{7}{5}$
- D. $\frac{5}{7}$

Question ID ceb0737c

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Algebra	Linear equations in two variables	<div><div></div><div></div><div></div></div>

ID: ceb0737c

Line p is defined by $2y + 18x = 9$. Line r is perpendicular to line p in the xy -plane. What is the slope of line r ?

- A. -9
- B. $-\frac{1}{9}$
- C. $\frac{1}{9}$
- D. 9

Question ID 6e19ea96

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Algebra	Linear equations in two variables	<div><div></div><div></div><div></div></div>

ID: 6e19ea96

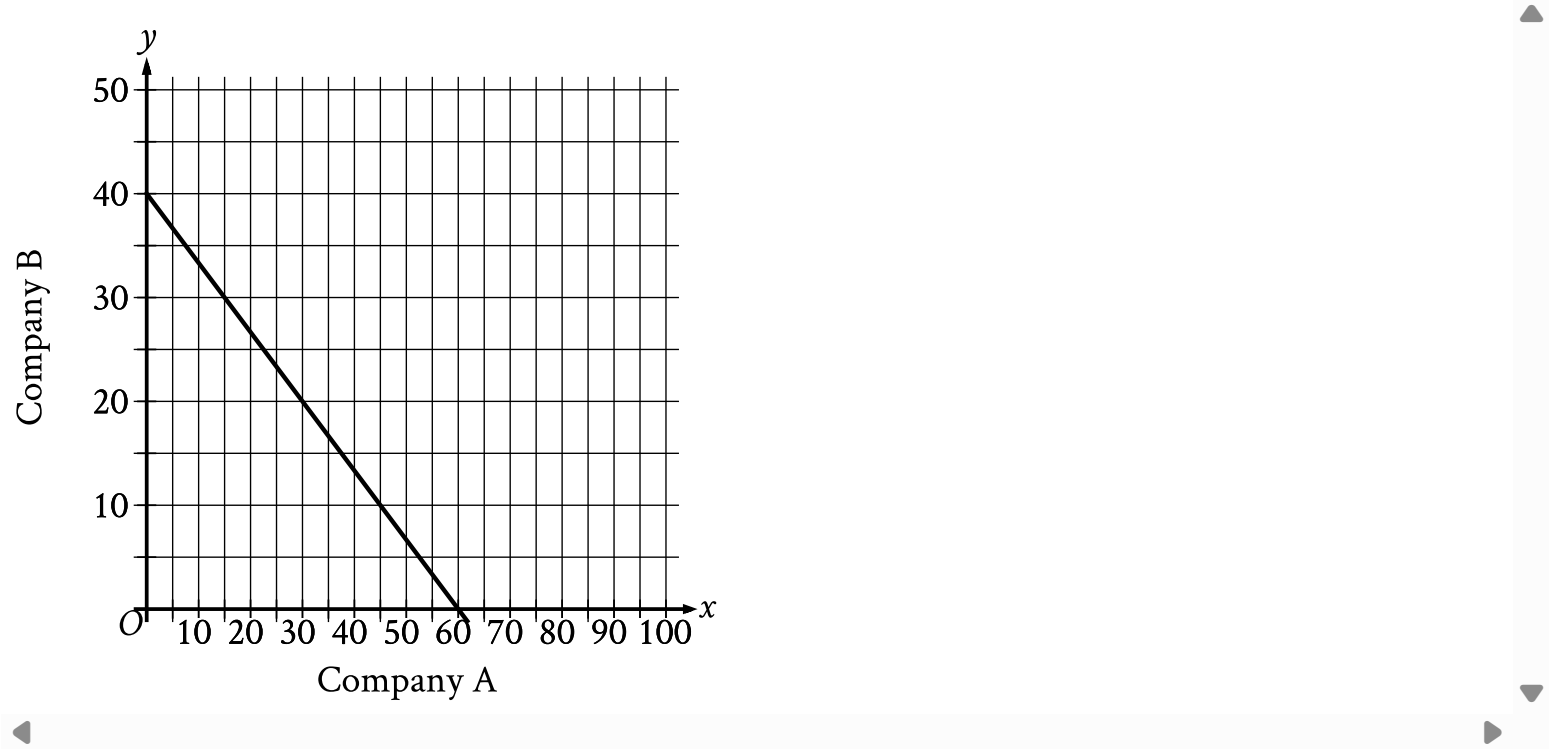
A certain township consists of a **5**-hectare industrial park and a **24**-hectare neighborhood. The total number of trees in the township is **4,529**. The equation $5x + 24y = 4,529$ represents this situation. Which of the following is the best interpretation of x in this context?

- A. The average number of trees per hectare in the industrial park
- B. The average number of trees per hectare in the neighborhood
- C. The total number of trees in the industrial park
- D. The total number of trees in the neighborhood

Question ID c76c55f1

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Algebra	Linear equations in two variables	<div><div></div><div></div><div></div></div>

ID: c76c55f1



The graph shows the relationship between the number of shares of stock from Company A, x , and the number of shares of stock from Company B, y , that Simone can purchase. Which equation could represent this relationship?

- A. $y = 8x + 12$
- B. $8x + 12y = 480$
- C. $y = 12x + 8$
- D. $12x + 8y = 480$

Question ID 58268fa4

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Algebra	Linear equations in two variables	<div><div></div><div></div><div></div></div>

ID: 58268fa4

$$\begin{aligned}5x + 7y &= 1 \\ ax + by &= 1\end{aligned}$$

In the given pair of equations, a and b are constants. The graph of this pair of equations in the xy -plane is a pair of perpendicular lines. Which of the following pairs of equations also represents a pair of perpendicular lines?

- A. $\begin{aligned}10x + 7y &= 1 \\ ax - 2by &= 1\end{aligned}$
- B. $\begin{aligned}10x + 7y &= 1 \\ ax + 2by &= 1\end{aligned}$
- C. $\begin{aligned}10x + 7y &= 1 \\ 2ax + by &= 1\end{aligned}$
- D. $\begin{aligned}5x - 7y &= 1 \\ ax + by &= 1\end{aligned}$

Question ID 8905014c

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Algebra	Linear equations in two variables	<div><div></div><div></div><div></div></div>

ID: 8905014c

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. $y = 4x - 5$

Question ID d6f829aa

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Algebra	Linear equations in two variables	<div><div></div><div></div><div></div></div>

ID: d6f829aa

When line n is graphed in the xy -plane, it has an x -intercept of $(-4, 0)$ and a y -intercept of $(0, \frac{86}{3})$. What is the slope of line n ?

- A. $\frac{3}{344}$
- B. $\frac{6}{43}$
- C. $\frac{43}{6}$
- D. $\frac{344}{3}$

Question ID ed45b58a

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Algebra	Linear equations in two variables	<div><div></div><div></div><div></div></div>

ID: ed45b58a

If the graph of $27x + 33y = 297$ is shifted down 5 units in the xy -plane, what is the y -intercept of the resulting graph?

- A. (0, 4)
- B. (0, 6)
- C. (0, 14)
- D. (0, 28)

Question ID c9640c5e

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Algebra	Linear equations in two variables	<div><div></div><div></div><div></div></div>

ID: c9640c5e

$$5G + 45R = 380$$

At a school fair, students can win colored tokens that are worth a different number of points depending on the color. One student won G green tokens and R red tokens worth a total of 380 points. The given equation represents this situation. How many more points is a red token worth than a green token?

Question ID d6b7f117

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Algebra	Linear equations in two variables	<div><div></div><div></div><div></div></div>

ID: d6b7f117

$$24.5x + 24.75y = 641$$

Isabel ordered topsoil and crushed stone, which cost a total of **\$641**, for her garden. The given equation represents the relationship between the number of cubic yards of topsoil, *x*, and the number of tons of crushed stone, *y*, Isabel ordered. How much more, in dollars, did a ton of crushed stone cost Isabel than a cubic yard of topsoil?

Question ID b6c52d17

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Algebra	Linear equations in two variables	<div></div> <div></div> <div></div>

ID: b6c52d17

The graph of $7x + 2y = -31$ in the xy -plane has an x -intercept at $(a, 0)$ and a y -intercept at $(0, b)$, where a and b are constants. What is the value of $\frac{b}{a}$?

- A. $-\frac{7}{2}$
- B. $-\frac{2}{7}$
- C. $\frac{2}{7}$
- D. $\frac{7}{2}$

Question ID 6392c153

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Algebra	Linear equations in two variables	<div></div> <div></div> <div></div>

ID: 6392c153

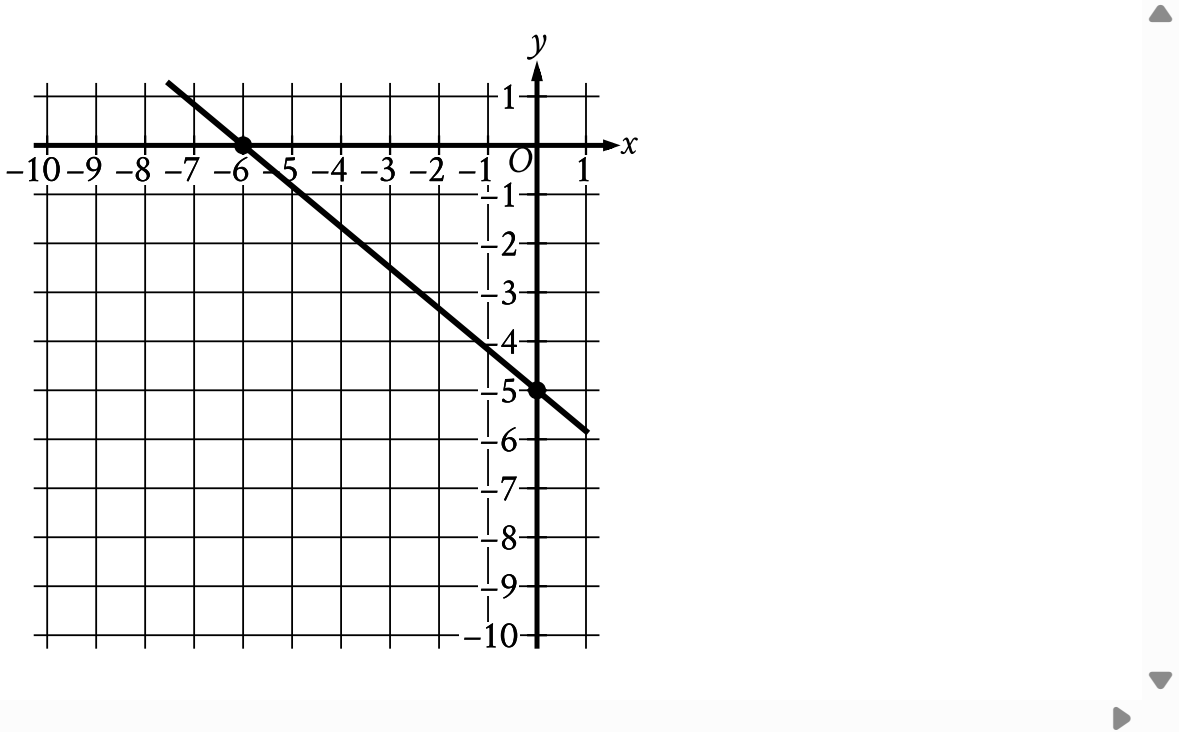
Line k is defined by $y = \frac{17}{7}x + 4$. Line j is parallel to line k in the xy -plane. What is the slope of line j ?

- A. $\frac{7}{17}$
- B. $\frac{17}{7}$
- C. 4
- D. 17

Question ID 271580a8

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Algebra	Linear equations in two variables	<div></div> <div></div> <div></div>

ID: 271580a8



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

Question ID 476dc73f

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Algebra	Linear equations in two variables	<div><div></div><div></div><div></div></div>

ID: 476dc73f

A total of **2** squares each have side length r . A total of **6** equilateral triangles each have side length t . None of these squares and triangles shares a side. The sum of the perimeters of all these squares and triangles is **210**. Which equation represents this situation?

- A. $6r + 24t = 210$
- B. $2r + 6t = 210$
- C. $8r + 18t = 210$
- D. $6r + 2t = 210$

Question ID 55634ff7

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Algebra	Linear equations in two variables	<div><div></div><div></div><div></div></div>

ID: 55634ff7

A chemist combines water and acetic acid to make a mixture with a volume of **56 milliliters (mL)**. The volume of acetic acid in the mixture is **10 mL**. What is the volume of water, in **mL**, in the mixture? (Assume that the volume of the mixture is the sum of the volumes of water and acetic acid before they were mixed.)

Question ID 69236d08

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Algebra	Linear equations in two variables	<div><div></div><div></div><div></div></div>

ID: 69236d08

x	y
18	130
23	160
26	178



For line h , the table shows three values of x and their corresponding values of y . Line k is the result of translating line h down 5 units in the xy -plane. What is the x -intercept of line k ?

- A. $(-\frac{26}{3}, 0)$
- B. $(-\frac{9}{2}, 0)$
- C. $(-\frac{11}{3}, 0)$
- D. $(-\frac{17}{6}, 0)$

Question ID be02f3aa

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Algebra	Linear equations in two variables	<div><div></div><div></div><div></div></div>

ID: be02f3aa

What is the slope of the graph of $y = \frac{1}{3}(29x + 10) + 5x$ in the xy -plane?

Question ID ce9dbaf3

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Algebra	Linear equations in two variables	<div><div></div><div></div><div></div></div>

ID: ce9dbaf3

Lily made **36** cups of jam. Lily then filled x small containers and y large containers with all the jam she made. The equation $4x + 6y = 36$ represents this situation. Which is the best interpretation of $6y$ in this context?

- A. The number of large containers Lily filled
- B. The number of small containers Lily filled
- C. The total number of cups of jam in the large containers
- D. The total number of cups of jam in the small containers

Question ID cca65a7c

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Algebra	Linear equations in two variables	<div><div></div><div></div><div></div></div>

ID: cca65a7c

A neighborhood consists of a **2**-hectare park and a **35**-hectare residential area. The total number of trees in the neighborhood is **3,934**. The equation $2x + 35y = 3,934$ represents this situation. Which of the following is the best interpretation of x in this context?

- A. The average number of trees per hectare in the park
- B. The average number of trees per hectare in the residential area
- C. The total number of trees in the park
- D. The total number of trees in the residential area

Question ID e76256e7

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Algebra	Linear equations in two variables	<div><div></div><div></div><div></div></div>

ID: e76256e7

What is the y -coordinate of the y -intercept of the graph of $\frac{3x}{7} = -\frac{5y}{9} + 21$ in the xy -plane?

Question ID a1d4d6de

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Algebra	Linear equations in two variables	<div><div></div><div></div><div></div></div>

ID: a1d4d6de

$$2x + y = 37$$

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 a9ee9cb4

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Algebra	Linear equations in two variables	<div><div></div><div></div><div></div></div>

ID: a9ee9cb4

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 136884df

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Algebra	Linear equations in two variables	<div><div></div><div></div><div></div></div>

ID: 136884df

Line p is defined by $4y + 8x = 6$. Line r is perpendicular to line p in the xy -plane. What is the slope of line r ?

Question ID e3e3fe7e

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Algebra	Linear equations in two variables	<div><div></div><div></div><div></div></div>

ID: e3e3fe7e

Figure A and figure B are both regular polygons. The sum of the perimeter of figure A and the perimeter of figure B is **63** inches. The equation **$3x + 6y = 63$** represents this situation, where **x** is the number of sides of figure A and **y** is the number of sides of figure B. Which statement is the best interpretation of **6** in this context?

- A. Each side of figure B has a length of **6** inches.
- B. The number of sides of figure B is **6**.
- C. Each side of figure A has a length of **6** inches.
- D. The number of sides of figure A is **6**.

Question ID f1350f37

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Algebra	Linear equations in two variables	<div><div></div><div></div><div></div></div>

ID: f1350f37

In the xy -plane, line s passes through the point $(0, 0)$ and is parallel to the line represented by the equation $y = 18x + 2$. If line s also passes through the point $(4, d)$, what is the value of d ?

- A. 2
- B. 18
- C. 72
- D. 74

Question ID 8ec3cae8

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Algebra	Linear equations in two variables	<div><div></div><div></div><div></div></div>

ID: 8ec3cae8

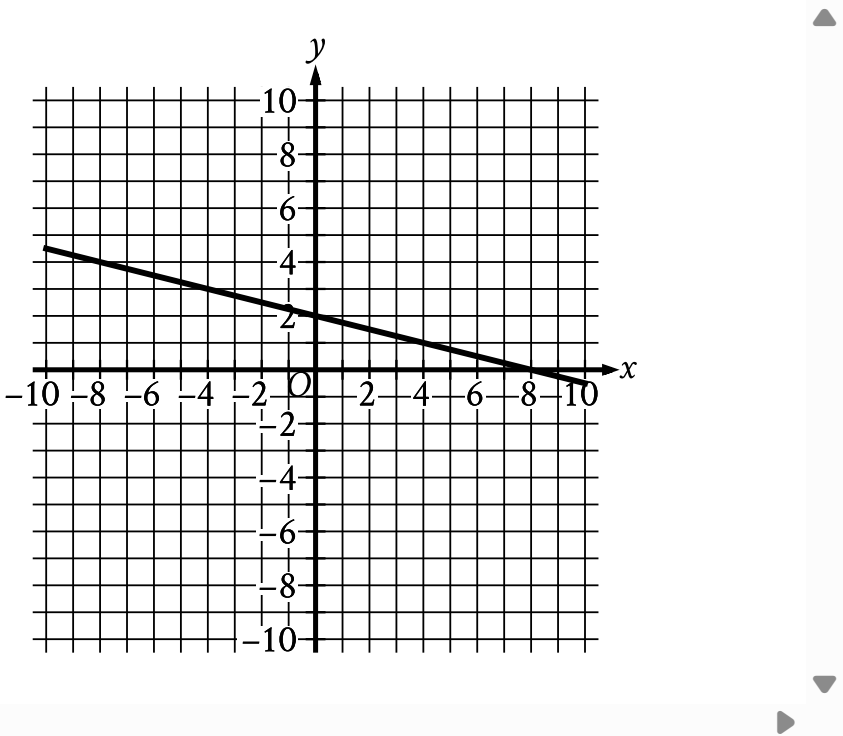
Line k is defined by $y = 7x + \frac{1}{8}$. Line j is perpendicular to line k in the xy -plane. What is the slope of line j ?

- A. -8
- B. $-\frac{1}{7}$
- C. $\frac{1}{8}$
- D. 7

Question ID d999ef02

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Algebra	Linear equations in two variables	<div><div></div><div></div><div></div></div>

ID: d999ef02



The graph of $y = f(x) + 14$ is shown. Which equation defines function f ?

- A. $f(x) = -\frac{1}{4}x - 12$
- B. $f(x) = -\frac{1}{4}x + 16$
- C. $f(x) = -\frac{1}{4}x + 2$
- D. $f(x) = -\frac{1}{4}x - 14$

Question ID 567c2bc5

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Algebra	Linear equations in two variables	<div><div></div><div></div><div></div></div>

ID: 567c2bc5

x	y
-18	-48
7	52

The table shows two values of x and their corresponding values of y . In the xy -plane, the graph of the linear equation representing this relationship passes through the point $(\frac{1}{7}, a)$. What is the value of a ?

- A. $-\frac{4}{11}$
- B. $-\frac{4}{77}$
- C. $\frac{4}{7}$
- D. $\frac{172}{7}$

Question ID 3409ce40

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Algebra	Linear equations in two variables	<div></div> <div></div> <div></div>

ID: 3409ce40

Line r is defined by the equation $4x - 9y = 3$. Line s is parallel to line r in the xy -plane. What is the slope of line s ?

- A. $\frac{9}{4}$
- B. $\frac{4}{9}$
- C. -4
- D. -9

Question ID 7dad301b

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Algebra	Linear equations in two variables	<div><div></div><div></div><div></div></div>

ID: 7dad301b

$$\frac{3}{5}x + \frac{3}{4}y = 7$$

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

A.

x	y
1	$\frac{113}{20}$
2	$\frac{101}{20}$
4	$\frac{77}{20}$

B.

x	y
1	$\frac{47}{5}$
2	$\frac{44}{5}$
4	$\frac{38}{5}$

C.

x	y
1	$\frac{148}{15}$
2	$\frac{136}{15}$
4	$\frac{112}{15}$

D.

x	y
1	$\frac{128}{15}$
2	$\frac{116}{15}$
4	$\frac{92}{15}$

Question ID 9b8cc94d

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Algebra	Linear equations in two variables	<div><div></div><div></div><div></div></div>

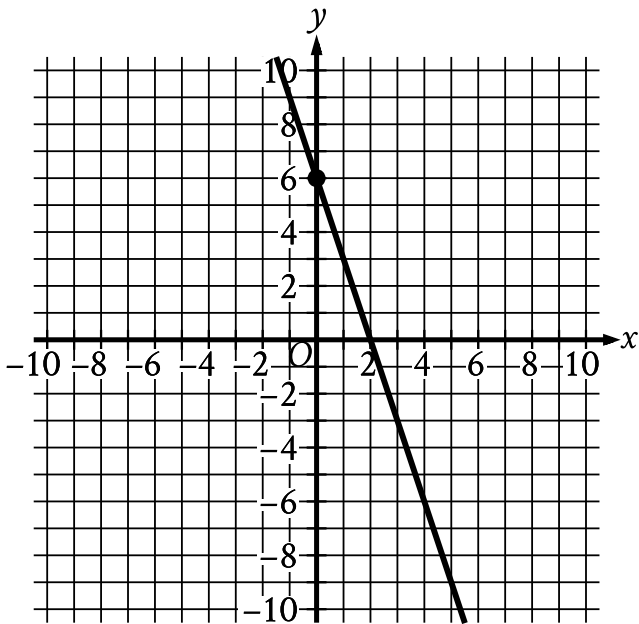
ID: 9b8cc94d

Line k is defined by $y = -\frac{17}{3}x + 5$. Line j is perpendicular to line k in the xy -plane. What is the slope of line j ?

Question ID 42d720b2

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Algebra	Linear equations in two variables	<div><div></div><div></div><div></div></div>

ID: 42d720b2



The graph shows a linear relationship between x and y . Which equation represents this relationship, where R is a positive constant?

- A. $Rx + 18y = 36$
- B. $Rx - 18y = -36$
- C. $18x + Ry = 36$
- D. $18x - Ry = -36$

Question ID 48296c1e

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Algebra	Linear equations in two variables	<div><div></div><div></div><div></div></div>

ID: 48296c1e

$2.5b + 5r = 80$

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 60a9d5ac

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Algebra	Linear equations in two variables	<div><div></div><div></div><div></div></div>

ID: 60a9d5ac

In the xy -plane, line p has a slope of $-\frac{5}{3}$ and an x -intercept of $(-6, 0)$. What is the y -coordinate of the y -intercept of line p ?

Question ID d2b63a46

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Algebra	Linear equations in two variables	<div><div></div><div></div><div></div></div>

ID: d2b63a46

x	y
−6	65
−3	56
3	38
6	29

The table shows four 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. $9x + 3y = 141$
- B. $9x + 3y = 3$
- C. $3x + 9y = 141$
- D. $3x + 9y = 3$

Question ID 46782383

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Algebra	Linear equations in two variables	<div><div></div><div></div><div></div></div>

ID: 46782383

At a state fair, attendees can win tokens that are worth a different number of points depending on the shape. One attendee won S square tokens and C circle tokens worth a total of $1,120$ points. The equation $80S + 90C = 1,120$ represents this situation. How many more points is a circle token worth than a square token?

- A. 950
- B. 90
- C. 80
- D. 10

Question ID 21ded0ba

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Algebra	Linear equations in two variables	<div><div></div><div></div><div></div></div>

ID: 21ded0ba

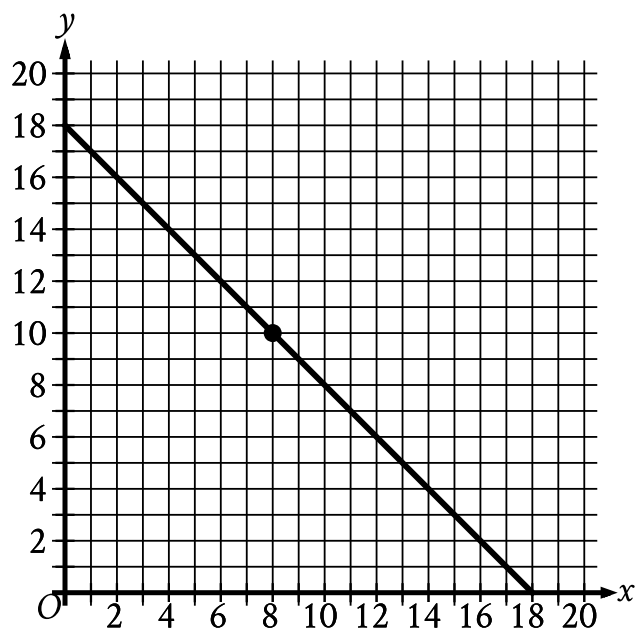
Keenan made **32** cups of vegetable broth. Keenan then filled x small jars and y large jars with all the vegetable broth he made. The equation $3x + 5y = 32$ represents this situation. Which is the best interpretation of $5y$ in this context?

- A. The number of large jars Keenan filled
- B. The number of small jars Keenan filled
- C. The total number of cups of vegetable broth in the large jars
- D. The total number of cups of vegetable broth in the small jars

Question ID e0a8b133

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Algebra	Linear equations in two variables	<div></div> <div></div> <div></div>

ID: e0a8b133



The graph in the xy -plane models the possible combinations of length x , in meters (**m**), and width y , in meters, for a rectangle with a perimeter of **36 m**. Which statement is the best interpretation of the point $(8, 10)$ in this context?

- A. The length is **10 m** less than the perimeter, and the width is **8 m** less than the perimeter.
- B. The length is **10 m**, and the width is **8 m**.
- C. The length is **8 m**, and the width is **10 m**.
- D. The length is **8 m** less than the perimeter, and the width is **10 m** less than the perimeter.

Question ID 4986ad22

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Algebra	Linear equations in two variables	<div><div></div><div></div><div></div></div>

ID: 4986ad22

A batch of banana milkshakes consists of **4** cups of ice cream and **2** bananas and has **1,114 milligrams (mg)** of calcium. There is **276 mg** of calcium in **1** cup of the ice cream used to make this batch of milkshakes. How much calcium, **in mg**, is in **1** banana?

- A. **5**
- B. **10**
- C. **419**
- D. **1,104**