

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Algebra	Linear functions	Easy

ID: dadfd136

In the linear function h , $h(0) = 41$ and $h(1) = 40$. Which equation defines h ?

- ~~$h(x) = -x + 41$~~
- ~~$h(x) = -x$~~
- ~~$h(x) = -41x$~~
- ~~$h(x) = -41$~~

$(0, 41), (1, 40)$

Desmos $\rightarrow -x + 41 = y$

Check Slope $= \frac{41 - 40}{0 - 1} = -1$

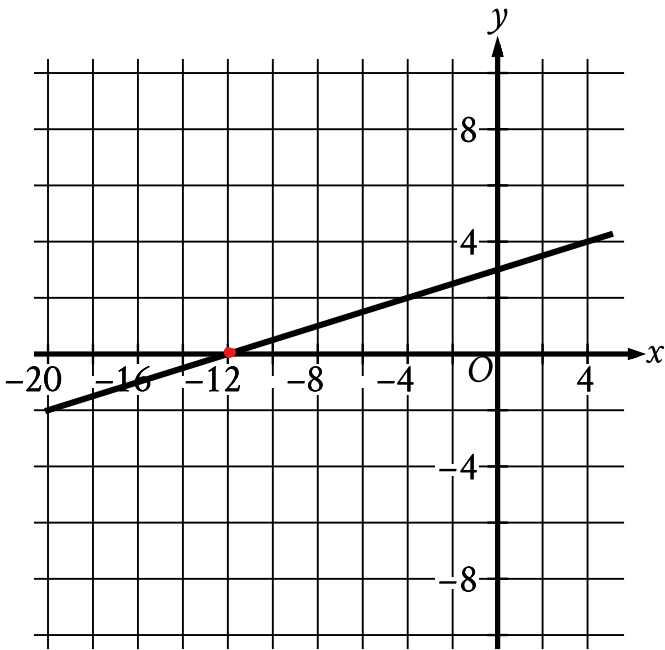
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Question ID a54038fb

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Algebra	Linear functions	Easy

ID: a54038fb



The graph of the linear function f is shown, where $y = f(x)$. What is the x-intercept of the graph of f ?

- ~~A. $(-12, 0)$~~
- B. ~~$(0, 0)$~~
- C. ~~$(\frac{1}{4}, 0)$~~
- D. ~~$(12, 0)$~~

Question ID 366854ef

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Algebra	Linear functions	Easy

ID: 366854ef

$$f(x) = x + \frac{8}{11}$$

The function f is defined by the given equation. What is the value of $f(x)$ when $x = \frac{3}{11}$?

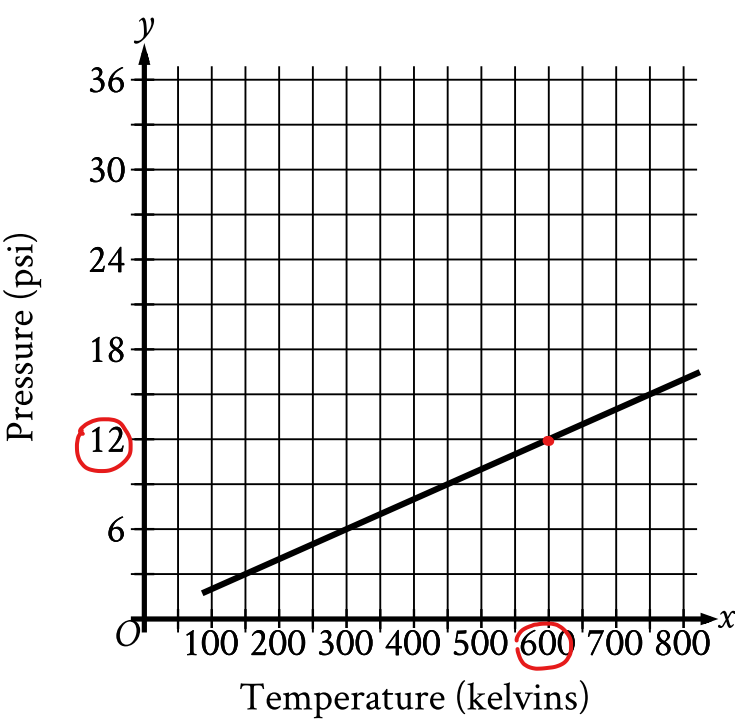
$$\begin{aligned} f\left(\frac{3}{11}\right) &= \frac{3}{11} + \frac{8}{11} \\ &= 1 \end{aligned}$$

Question ID 567984fc

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Algebra	Linear functions	Easy

ID: 567984fc

Argon is placed inside a container with a constant volume. The graph shows the estimated pressure y , in pounds per square inch (psi), of the argon when its temperature is x kelvins.



What is the estimated pressure of the argon, in **psi**, when the temperature is **600** kelvins?

- A. 6
- ~~B. 12~~
- C. 300
- D. 600

Question ID 4c195508

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Algebra	Linear functions	Easy

ID: 4c195508



$d = 16t$

The given equation represents the distance d , in inches, where t represents the number of seconds since an object started moving. Which of the following is the best interpretation of **16** in this context?

- A. The object moved a total of **16** inches.
- B. The object moved a total of **16t** inches.
- C. The object is moving at a rate of **16** inches per second.
- D. The object is moving at a rate of $\frac{1}{16}$ inches per second.

Question ID 19d890da

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Algebra	Linear functions	Easy

ID: 19d890da

$$d = 16 - \frac{x}{30}$$

The equation shown gives the estimated amount of diesel d , in gallons, that remains in the gas tank of a truck after being driven x miles, where $0 \leq x \leq 480$. What is the estimated amount of diesel, in gallons, that remains in the gas tank of the truck when $x = 300$?

- A. 0
- ~~B. 6~~
- C. 14
- D. 16

$$16 - \frac{300}{30} = 6 //$$

Question ID cab69050

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Algebra	Linear functions	Easy

ID: cab69050

The cost y , in dollars, for a manufacturer to make x rings is represented by the line shown.



What is the cost, in dollars, for the manufacturer to make 60 rings?

- A. 100
- B. 125
- ~~C. 175~~
- D. 225

Question ID 15048ba2

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Algebra	Linear functions	Easy

ID: 15048ba2

The function f is defined by $f(x) = 3x - 8$. What is the value of $f(7)$?

A. 29

~~B. 13~~

C. -5

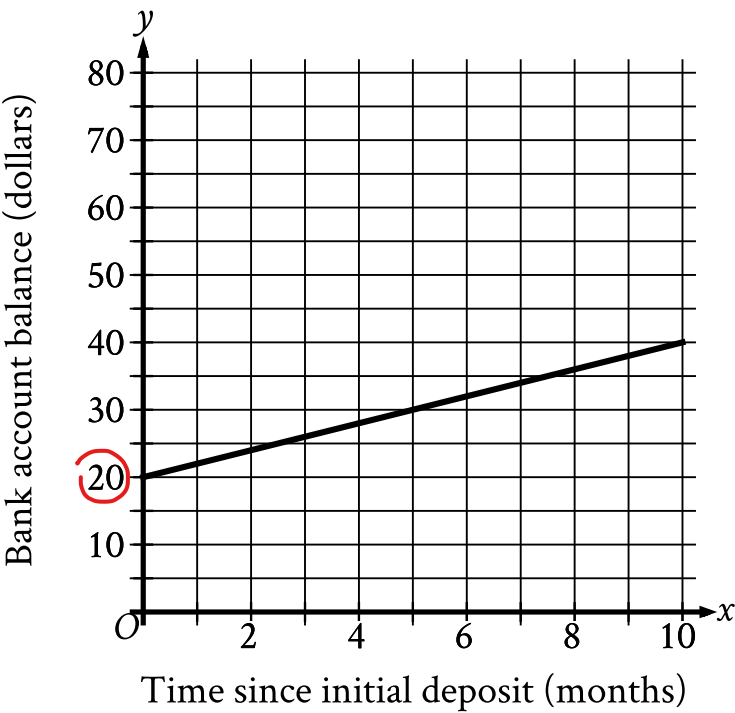
D. -29

$$\begin{aligned} f(7) &= 3(7) - 8 \\ &= 13 // \end{aligned}$$

Question ID 79354b8a

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Algebra	Linear functions	Easy

ID: 79354b8a



A bank account was opened with an initial deposit. Over the next several months, regular deposits were made into this account, and there were no withdrawals made during this time. The graph of the function f shown, where $y = f(x)$, estimates the account balance, in dollars, in this bank account x months since the initial deposit. To the nearest whole dollar, what is the amount of the initial deposit estimated by the graph?

20 //

Question ID dd381f21

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Algebra	Linear functions	Easy

ID: dd381f21



The function f is defined by $f(x) = 80 - 6x$. What is the value of $f(7)$?

- A. 13
- B. 38
- C. 74
- D. 81

Question ID 59872b80

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Algebra	Linear functions	Easy

ID: 59872b80

The function g is defined by $g(x) = 10x + 8$. What is the value of $g(x)$ when $x = 8$?

- A. 0
- B. 8
- C. 10
- ~~D. 88~~

$$g(8) = 10(8) + 8$$
$$= 88 //$$

Question ID d2205c27

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Algebra	Linear functions	Easy

ID: d2205c27

$f(x) = x + b$

For the linear function f , b is a constant. When $x = 0$, $f(x) = 30$. What is the value of b ?

- A. -30
- B. $-\frac{1}{30}$
- C. $\frac{1}{30}$
- ~~D. 30~~

$f(0) = 0 + b$
 $30 = b //$

Question ID 2e5d2643

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Algebra	Linear functions	Easy

ID: 2e5d2643

$f(x) = 8x + 4$

The function f gives the estimated height, in feet, of a willow tree x years after its height was first measured. Which statement is the best interpretation of 4 in this context?

- Y-intercept
- 8 → Slope
- 8 → Slope
- ☐ A. The tree will be measured each year for ~~4~~ years.
 - ☐ B. The tree is estimated to grow to a maximum height of ~~4~~ feet.
 - ☐ C. The estimated height of the tree increased by ~~4~~ feet each year.
 - ☒ D. The estimated height of the tree was ~~4~~ feet when it was first measured.

Question ID fe4d899b

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Algebra	Linear functions	Easy

ID: fe4d899b

For the linear function f , the graph of $y = f(x)$ in the xy -plane has a slope of $\frac{1}{4}$ and passes through the point $(0, 5)$. Which equation defines f ?

- ~~A. $f(x) = \frac{1}{4}x + 5$~~
- B. $f(x) = \frac{1}{4}x + \frac{1}{5}$
- C. $f(x) = \frac{1}{4}x - \frac{5}{4}$
- D. $f(x) = \frac{1}{4}x - 5$

Question ID 7b689995

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Algebra	Linear functions	Easy

ID: 7b689995

The function h is defined by $h(x) = 3x - 7$. What is the value of $h(-2)$?

~~A. -13~~

B. -10

C. 10

D. 13

$$\begin{aligned} h(-2) &= 3(-2) - 7 \\ &= -13 // \end{aligned}$$

Question ID 1c4f9da2

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Algebra	Linear functions	Easy

ID: 1c4f9da2



For the linear function f , $f(0) = 17$ and $f(1) = 17$. Which equation defines f ?

- A. $f(x) = \frac{1}{17}$
- B. $f(x) = 1$
- C. $f(x) = 17$
- D. $f(x) = 34$

Question ID c41e64a3

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Algebra	Linear functions	Easy

ID: c41e64a3

$$f(x) = 7x + 1$$

The function gives the total number of people on a company retreat with x managers. What is the total number of people on a company retreat with **7** managers?

$$\begin{aligned} f(7) &= 7(7) + 1 \\ &= 50 // \end{aligned}$$

Question ID 827504df

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Algebra	Linear functions	Easy

ID: 827504df

If $y = 5x + 10$, what is the value of y when $x = 8$?

$$\begin{aligned} y &= 5(8) + 10 \\ &= 50 // \end{aligned}$$

Question ID 8235f2ed

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Algebra	Linear functions	Easy

ID: 8235f2ed

x	$f(x)$
0	29
1	32
2	35

For the linear function f , the table shows three values of x and their corresponding values of $f(x)$. Which equation defines $f(x)$?

- ~~A. $f(x) = 3x + 29$~~
- B. $f(x) = \del{29}x + 32$
- C. $f(x) = \del{35}x + 29$
- D. $f(x) = \del{32}x + 35$

Desmos $\rightarrow 3x + 29 = y$

Check Slope $\frac{32 - 29}{1 - 0} = 3$

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Question ID 468f320e

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Algebra	Linear functions	Easy

ID: 468f320e

Hana deposited a fixed amount into her bank account each month. The function $f(t) = 100 + 25t$ gives the amount, in dollars, in Hana's bank account after t monthly deposits. What is the best interpretation of 25 in this context?

- ~~A.~~ With each monthly deposit, the amount in Hana's bank account increased by \$25. Slope
- B. Before Hana made any monthly deposits, the amount in her bank account was ~~\$25~~.
- C. After 1 monthly deposit, the amount in Hana's bank account was \$25. $f(1)$
- D. Hana made a total of ~~25~~ monthly deposits.

Question ID 49dc0f69

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Algebra	Linear functions	Easy

ID: 49dc0f69



The function f is defined by the equation $f(x) = 100x + 2$. What is the value of $f(x)$ when $x = 9$?

- A. 111
- B. 118
- C. 900
- D. 902

Question ID a5ed4369

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Algebra	Linear functions	Easy

ID: a5ed4369

The function f is defined by $f(x) = 8x$. For what value of x does $f(x) = 72$?

- A. 8
- ~~B. 9~~
- C. 64
- D. 80

$72 = 8x$
 $x = 9 //$

Question ID a400ddb4

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Algebra	Linear functions	Easy

ID: a400ddb4

A contract for a certain service requires a onetime activation cost of \$35 and a monthly cost of \$23. Which equation represents this situation, where c is the total cost, in dollars, of this service contract for t months?

A. $c = \frac{t}{23} + 35$

B. $c = \frac{t}{35} + 23$

~~C. $c = 23t + 35$~~

D. $c = 35t + 23$

$y = 35 + 23t$

Question ID 1f976ac6

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Algebra	Linear functions	Easy

ID: 1f976ac6

The function f is defined by $f(x) = -3x + 60$. What is the value of $f(x)$ when $x = -8$?

- A. 49
- B. 52
- C. 57
- ~~D. 84~~

$$\begin{aligned} f(-8) &= -3(-8) + 60 \\ &= 84 // \end{aligned}$$

Question ID 07792154

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Algebra	Linear functions	Easy

ID: 07792154

For the linear function f , the graph of $y = f(x)$ in the xy -plane has a slope of 39 and passes through the point (0, 0). Which equation defines f ?

- A. $f(x) = -39x$
- B. $f(x) = \frac{1}{39}x$
- C. $f(x) = x - 39$
- ☒ D. $f(x) = \underline{39x}$

Question ID 630514d2

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Algebra	Linear functions	Easy

ID: 630514d2



Gabriella deposits ~~\$35~~ in a savings account at the end of each week. At the beginning of the ~~1st~~ week of a year there was ~~\$600~~ in that savings account. How much money, in dollars, will be in the account at the end of the ~~4th~~ week of that year?

- A. ~~460~~
- B. ~~635~~
- C. ~~639~~
- D. ~~740~~

Question ID f3d88453

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Algebra	Linear functions	Easy

ID: f3d88453

For the linear function f , the graph of $y = f(x)$ in the xy -plane has a slope of 2 and has a y -intercept at $(0, -5)$. Which equation defines f ?

- A. $f(x) = \frac{1}{2}x - 5$
- B. $f(x) = -\frac{1}{2}x - 5$
- C. $f(x) = -2x - 5$
- ☒ D. $f(x) = 2x - 5$

Question ID ca4cf555

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Algebra	Linear functions	Easy

ID: ca4cf555

As part of a science project on evaporation, Amaya measured the height ^{cm} of a liquid in a container over a period of time. The function $f(x) = 33 - 0.18x$ gives the estimated height, in centimeters (cm), of the liquid in the container x ^{days} after the start of the project. Which of the following is the best interpretation of 33 in this context?

- ~~X~~ The estimated height, in cm, of the liquid at the start of the project ^{y-intercept}
- B. The estimated height, in cm, of the liquid at the ~~end~~ of the project
- C. The estimated change in the height, in cm, of the liquid each day ^{Slope}
- D. The estimated number of ~~days~~ ^x for all of the liquid to evaporate

Question ID 109036d5

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Algebra	Linear functions	Easy

ID: 109036d5

The function f is defined by the equation $f(x) = 7x + 2$. What is the value of $f(x)$ when $x = 4$?

$$\begin{aligned} f(4) &= 7(4) + 2 \\ &= 30 // \end{aligned}$$

Question ID bc6c6829

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Algebra	Linear functions	Easy

ID: bc6c6829

Area (square feet)	Water (gallons)
2,520	4,536
3,780	6,804
5,040	9,072

The buildings of a shopping center are designed to allow water to drain from the roof into gutters on the sides of the buildings. The table shows the relationship between the area x , in square feet, of a roof and the amount of water $f(x)$, in gallons, drained from the roof into the gutters over a certain period of time. Which equation could define f ?

- A. $f(x) = 0.6x$
- ~~B. $f(x) = 1.8x$~~
- C. $f(x) = 2,268x$
- D. $f(x) = 4,536x$

Desmos $\rightarrow 1.8x = y$

Check Slope $\frac{6,804 - 4,536}{3,780 - 2,520} = 1.8$

b6n2h

Question ID 3b9a53e6

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Algebra	Linear functions	Easy

ID: 3b9a53e6

Sean rents a tent at a cost of \$11 per day plus a onetime insurance fee of \$10. Which equation represents the total cost c , in dollars, to rent the tent with insurance for d days?

A. $c = 11(d + 10)$

B. $c = 10(d + 11)$

~~C. $c = 11d + 10$~~

D. $c = 10d + 11$

$y = 11x + 10 //$

Question ID 1ba10732

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Algebra	Linear functions	Easy

ID: 1ba10732

The total cost $f(x)$, in dollars, to lease a car for **36** months from a particular car dealership is given by $f(x) = 36x + 1,000$, where x is the monthly payment, in dollars. What is the total cost to lease a car when the monthly payment is \$400?

- A. \$13,400
- B. \$13,000
- ~~C. \$15,400~~
- D. \$37,400

$$f(400) = 36(400) + 1,000$$
$$= 15,400 //$$

Question ID efec0cc4

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Algebra	Linear functions	Easy

ID: efec0cc4

The function f is defined by $f(x) = \frac{1}{10}x - 2$. What is the y-intercept of the graph of $y = f(x)$ in the xy -plane?

- A. ~~$(-2, 0)$~~
- ~~B. $(0, -2)$~~
- C. ~~$(0, \frac{1}{10})$~~
- D. ~~$(\frac{1}{10}, 0)$~~

Question ID e9e0893d

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Algebra	Linear functions	Easy

ID: e9e0893d



The length, y , of a white whale was **162 centimeters (cm)** when it was born and increased an average of **4.8 cm** per month for the first **12** months after it was born. Which equation best represents this situation, where x is the number of months after the whale was born and y is the length, in **cm**, of the whale?

- A. $y = 162x$
- B. $y = 162x + 162$
- C. $y = 4.8x + 4.8$
- D. $y = 4.8x + 162$

Question ID 2c082034

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Algebra	Linear functions	Easy

ID: 2c082034

The function f is defined by $f(x) = 25x + 30$. What is the value of $f(x)$ when $x = 2$?

- A. 50
- B. 57
- ~~C. 80~~
- D. 110

$$f(2) = 25(2) + 30$$
$$= 80 //$$

Question ID 0afda795

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Algebra	Linear functions	Easy

ID: 0afda795

For the function f , the graph of $y = f(x)$ in the xy -plane has a slope of 3 and passes through the point $(0, \underline{-8})$. Which equation defines f ?

A. $f(x) = 3x$ ~~✗~~

~~✗~~ $f(x) = 3x - 8$

C. $f(x) = 3x + 5$ ~~✗~~

D. $f(x) = 3x + 11$ ~~✗~~

Question ID 776fdb4

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Algebra	Linear functions	Easy

ID: 776fdb4

The function f is defined by $f(x) = 5x + 8$. For what value of x does $f(x) = 58$?

- ~~A. 10~~
- B. 13
- C. 50
- D. 298

$58 = 5x + 8$

$x = 10 //$

Question ID 493bd7fa

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Algebra	Linear functions	Easy

ID: 493bd7fa

The function f defined by $f(t) = 14t + 9$ gives the estimated length, in inches, of a vine plant t months after Tavon purchased it. Which of the following is the best interpretation of 9 in this context?

- A. Tavon will keep the vine plant for ~~9~~ months.
- B. The vine plant is expected to grow ~~9~~ inches each month. slope
- C. The vine plant is expected to grow to a ~~maximum~~ length of ~~9~~ inches.
- ~~D.~~ The estimated length of the vine plant was ~~9~~ inches when Tavon purchased it.

Question ID 2e29c990

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Algebra	Linear functions	Easy

ID: 2e29c990

The function f is defined by $f(x) = 4x$. For what value of x does $f(x) = 8$?

$$\begin{aligned}8 &= 4x \\ x &= 2\end{aligned}$$

Question ID 136de2ff

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Algebra	Linear functions	Easy

ID: 136de2ff

$$f(x) = 14 + 4x$$

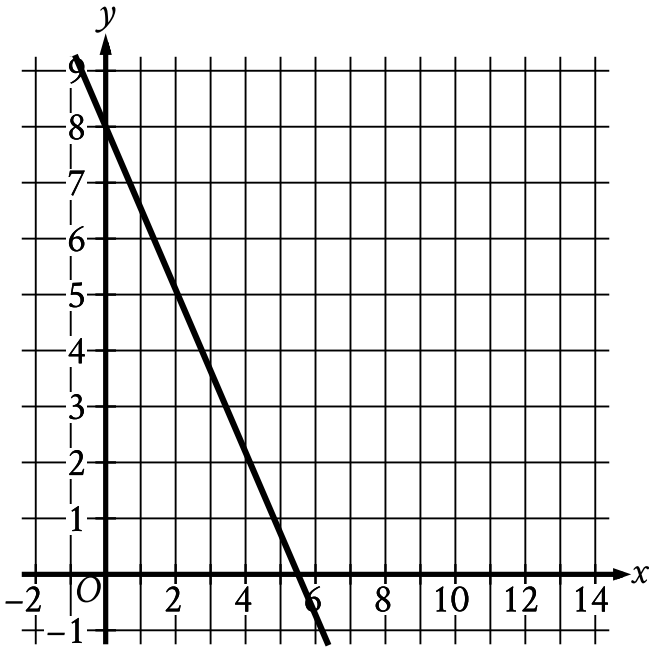
The function f represents the total cost, in dollars, of attending an arcade when x games are played. How many games can be played for a total cost of \$58?

$$\begin{aligned} 58 &= 14 + 4x \\ x &= 11 // \end{aligned}$$

Question ID 58d1b8bf

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Algebra	Linear functions	Easy

ID: 58d1b8bf



The graph of the linear function f is shown, where $y = f(x)$. What is the y -intercept of the graph of f ?

- A. $(0, 0)$
- B. $(0, -\frac{16}{11})$
- C. $(0, -8)$
- D. $(0, 8)$

Question ID eefbcc02

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Algebra	Linear functions	Easy

ID: eefbcc02

The function f is defined by $f(x) = \frac{7}{10}x + 55$. What is the value of $f(20)$?

$$\begin{aligned} f(20) &= \frac{7}{10}(20) + 55 \\ &= 69 // \end{aligned}$$

Question ID fadca26a

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Algebra	Linear functions	Easy

ID: fadca26a

To repair a refrigerator, a technician charges \$60 per hour for labor plus \$120 for parts. Which function f represents the total amount, in dollars, the technician will charge for this job if it takes x hours?

- A. $f(x) = x + 120$
- B. $f(x) = 60x$
- ~~C. $f(x) = 60x + 120$~~
- D. $f(x) = 60x - 120$

$y = 60x + 120 //$

Question ID 7f234c59

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Algebra	Linear functions	Easy

ID: 7f234c59

$f(x) = 4x + b$

For the linear function f , b is a constant and $f(7) = 28$. What is the value of b ?

- ~~A. 0~~
- B. 1
- C. 4
- D. 7

$$28 = 4(7) + b$$
$$b = 0 //$$

Question ID 8c2135ea

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Algebra	Linear functions	Easy

ID: 8c2135ea

The function f is defined by $f(x) = 4x - 3$. What is the value of $f(10)$?

- A. ~~−30~~
- ~~B. 37~~
- C. 40
- D. 43

$$f(10) = 4(10) - 3$$
$$= 37 //$$

Question ID 22a0072f

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Algebra	Linear functions	Easy

ID: 22a0072f

A bus is traveling at a constant speed along a straight portion of road. The equation $d = 30t$ gives the distance d , in feet from a road marker, that the bus will be t seconds after passing the marker. How many feet from the marker will the bus be 2 seconds after passing the marker?

- A. 30
- B. 32
- ~~C. 60~~
- D. 90

$$d = 30(2)$$
$$= 60 //$$

Question ID 0b7a4088

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Algebra	Linear functions	Easy

ID: 0b7a4088

$s = 40 + 3t$

The equation gives the speed s , in miles per hour, of a certain car t seconds after it began to accelerate. What is the speed, in miles per hour, of the car 5 seconds after it began to accelerate?

- A. 40
- B. 43
- C. 45
- ~~D. 55~~

$$S = 40 + 3(5)$$
$$= 55 //$$

Question ID 8cc98d14

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Algebra	Linear functions	Easy

ID: 8cc98d14

The function f is defined by $f(x) = \frac{1}{2}(x + 6)$. What is the value of $f(4)$?

- A. 20
- B. 12
- C. 10
- ~~D. 5~~

$$f(4) = \frac{1}{2}(4 + 6)$$
$$= 5 //$$

Question ID 111d9f2f

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Algebra	Linear functions	Easy

ID: 111d9f2f

The function g is defined by $g(x) = 6x$. For what value of x is $g(x) = 54$?

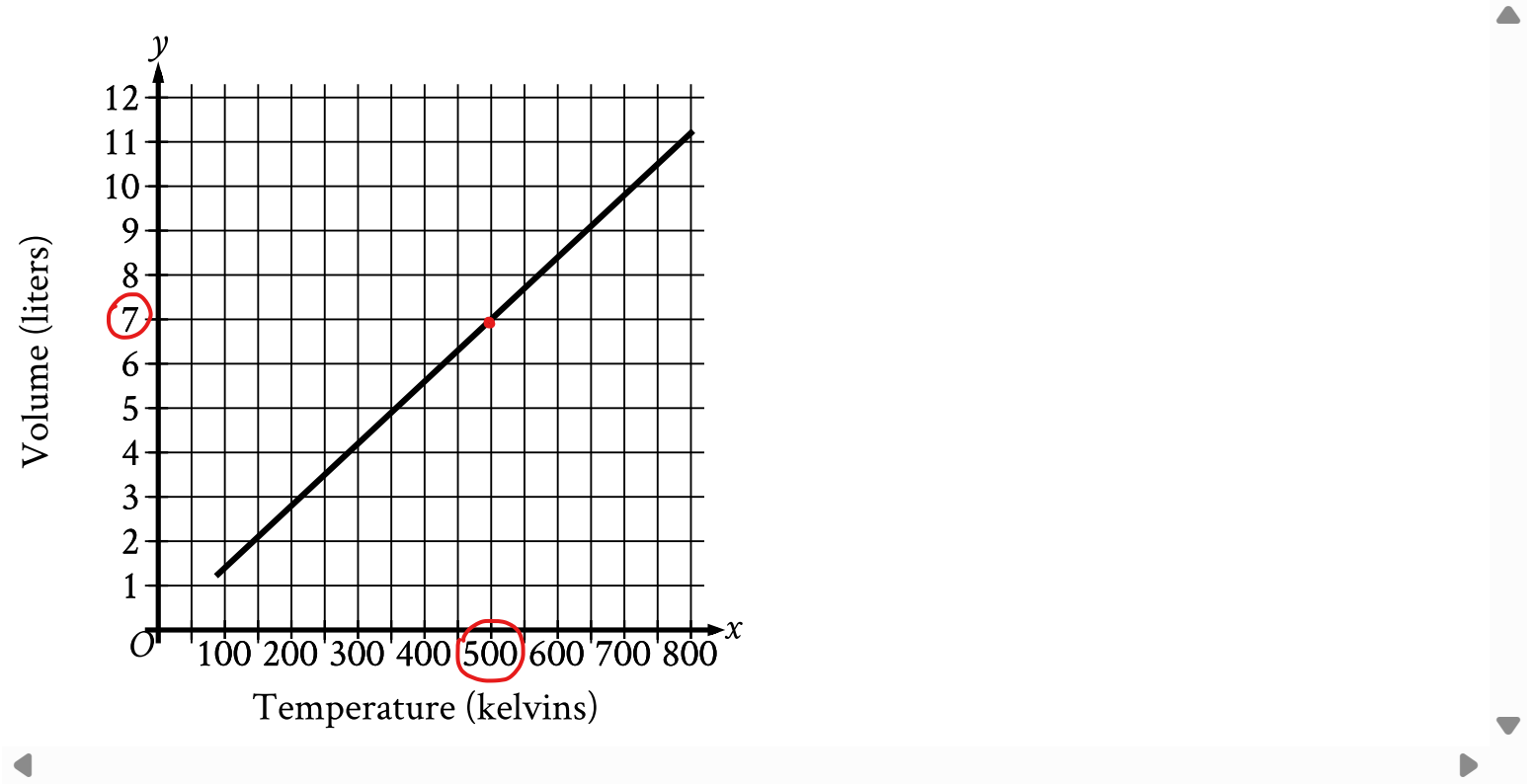
$$\begin{aligned} 54 &= 6x \\ x &= 9 // \end{aligned}$$

Question ID 16f3eb3d

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Algebra	Linear functions	Easy

ID: 16f3eb3d

Hydrogen is placed inside a container and kept at a constant pressure. The graph shows the estimated volume y , in liters, of the hydrogen when its temperature is x kelvins.



What is the estimated volume, in liters, of the hydrogen when its temperature is 500 kelvins?

- A. 0
- B. $\frac{7}{500}$
- ~~C. 7~~
- D. $\frac{500}{7}$

Question ID 9873a516

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Algebra	Linear functions	Easy

ID: 9873a516

For a training program, Juan rides his bike at an average rate of 5.7 minutes per mile. Which function m models the number of minutes it will take Juan to ride x miles at this rate?

- A. $m(x) = \frac{x}{5.7}$
- B. $m(x) = x + 5.7$
- C. $m(x) = x - 5.7$
- ~~D. $m(x) = 5.7x$~~

$y = 5.7x //$

Question ID 85e48cf1

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Algebra	Linear functions	Easy

ID: 85e48cf1

The function h is defined by $h(x) = x + 200$. What is the value of $h(50)$?

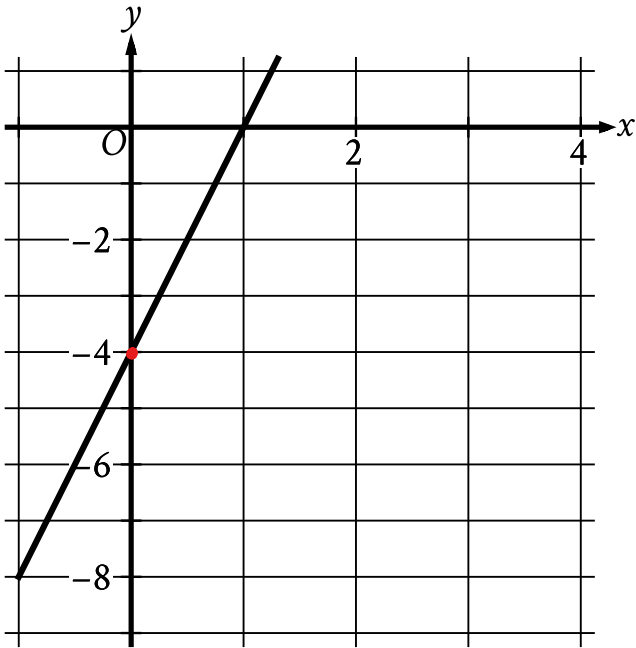
- A. 200
- ~~B. 250~~
- C. 10,000
- D. 50,200

$$h(50) = 50 + 200$$
$$= 250 //$$

Question ID 3cc268ac

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Algebra	Linear functions	Easy

ID: 3cc268ac



The graph of the function f is shown, where $y = f(x)$. What is the y-intercept of the graph?

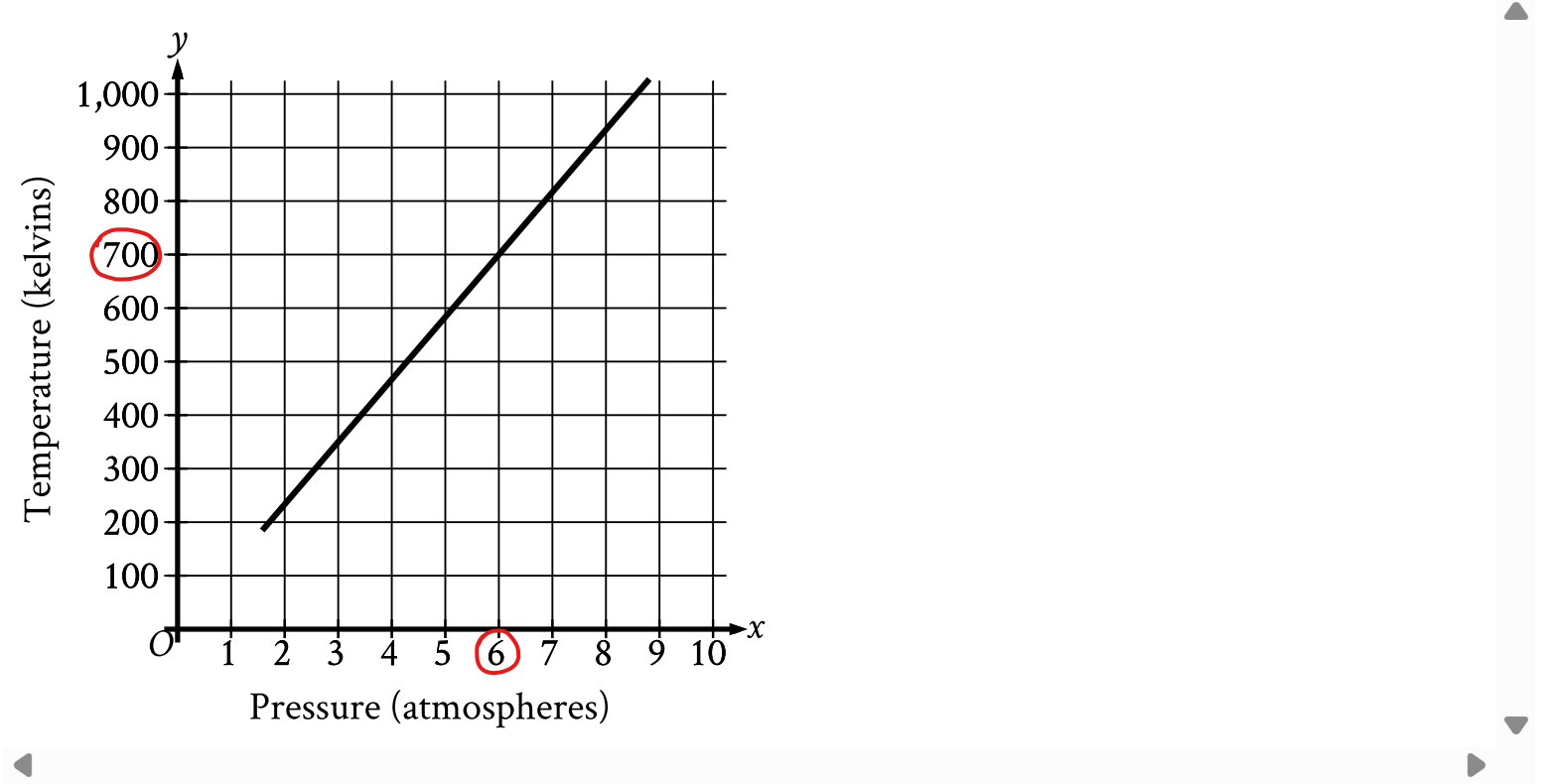
- A. ~~(0, 1)~~
- ~~B. (0, -4)~~
- C. ~~(0, 1)~~
- D. ~~(0, 4)~~

Question ID 86793098

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Algebra	Linear functions	Easy

ID: 86793098

Oxygen gas is placed inside a tank with a constant volume. The graph shows the estimated temperature y , in kelvins, of the oxygen gas when its pressure is x atmospheres.



What is the estimated temperature, in kelvins, of the oxygen gas when its pressure is 6 atmospheres?

- A. 6
- B. 60
- ~~C. 700~~
- D. 760

Question ID 0ddd17b2

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Algebra	Linear functions	Easy

ID: 0ddd17b2

In science class, Diego conducted an experiment to learn about evaporation. Diego measured the height of fluid in a beaker over a period of time. The function $f(x) = 39 - 0.18x$ gives the estimated height, **in centimeters (cm)**, of the fluid in the beaker x days after the start of the experiment. Which of the following is the best interpretation of **39** in this context?

- ~~A~~. The estimated height, **in cm**, of the fluid at the start of the experiment
- B. The estimated height, **in cm**, of the fluid at the ~~end~~ of the experiment
- C. The estimated change in the height, **in cm**, of the fluid each day
- D. The estimated number of days for all the fluid to evaporate

y-intercept

- 0.18

Domain

Question ID a7fd9fb4

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Algebra	Linear functions	Easy

ID: a7fd9fb4

A student council group is selling school posters for a fundraiser. They use the function $p(x) = 5x - 220$ to determine their profit $p(x)$, in dollars, for selling x school posters. In order to earn a profit of \$900, how many school posters must they sell?

$$\begin{aligned} 900 &= 5x - 220 \\ x &= 224 // \end{aligned}$$

Question ID 2b384315

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Algebra	Linear functions	Easy

ID: 2b384315

$g(x) = 11x + 4$

For the given linear function g , which table shows three values of x and their corresponding values of $g(x)$?

A.

x	$g(x)$
-1	7
0	~~11~~
1	15

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B.

x	$g(x)$
-1	-4
0	~~8~~
1	4

~~C.~~

x	$g(x)$
-1	-7
0	4
1	15

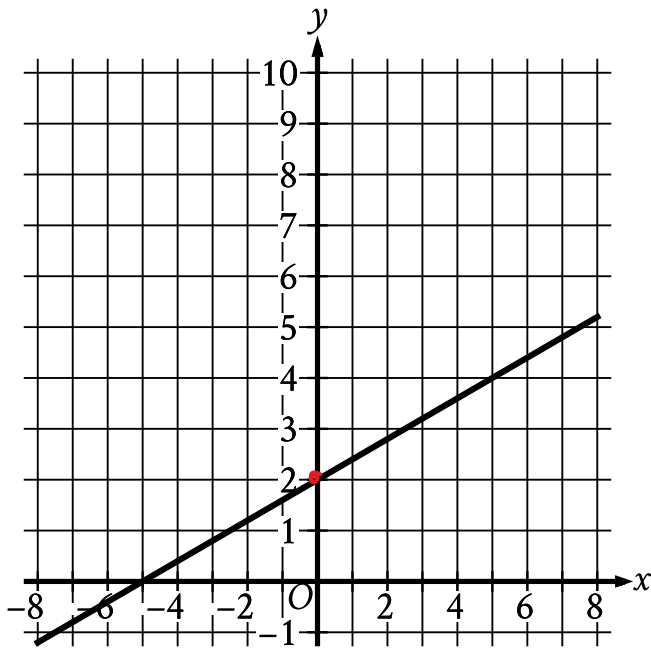
D.

x	$g(x)$
-1	-11
0	~~8~~
1	11

Question ID b850cfc2

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Algebra	Linear functions	Easy

ID: b850cfc2



The graph of the linear function f is shown. What is the y -intercept of the graph of $y = f(x)$?

- A. $(-5, 0)$
- B. $(2, 0)$
- C. $(0, 2)$
- D. $(0, -5)$

Question ID 59074d92

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Algebra	Linear functions	Easy

ID: 59074d92

The number y is 84 less than the number x . Which equation represents the relationship between x and y ?

A. $y = x + 84$

B. $y = \frac{1}{84}x$

C. $y = 84x$

~~D. $y = x - 84$~~

$y = x - 84 //$

Question ID 71228071

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Algebra	Linear functions	Easy

ID: 71228071

The function g is defined by $g(x) = 4x - 6$. What is the value of $g(-7)$?

- X

-34

$g(-7) = 4(-7) - 6$
 $= -34 //$
- B. -22
- C. $-\frac{13}{4}$
- D. $-\frac{1}{4}$

Question ID d977f302

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Algebra	Linear functions	Easy

ID: d977f302

A veterinarian recommends that each day a certain rabbit should eat 25 calories per pound of the rabbit’s weight, plus an additional 11 calories. Which equation represents this situation, where c is the total number of calories the veterinarian recommends the rabbit should eat each day if the rabbit’s weight is x pounds?

- A. $c = 25x$
- B. $c = 36x$
- C. $c = 11x + 25$
- ☒ $c = 25x + 11$

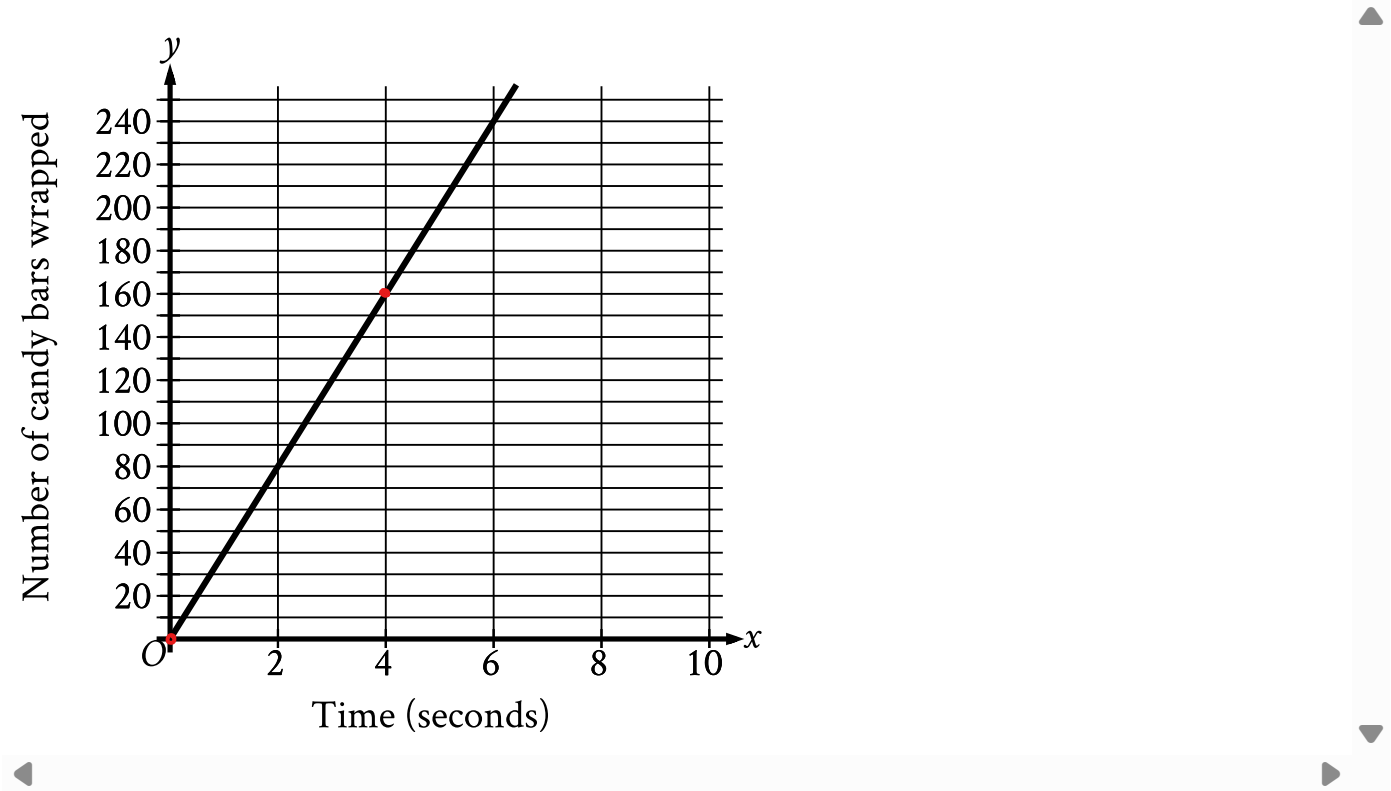
$y = 25x + 11$

Question ID d627788b

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Algebra	Linear functions	Easy

ID: d627788b

The graph shown models the number of candy bars a certain machine wraps with a label in x seconds.



According to the graph, what is the estimated number of candy bars the machine wraps with a label per second?

- A. 2
- ~~B. 40~~
- C. 78
- D. 80

Slope

Desmos $(0,0), (4,160) \rightarrow y = 40x$

Check Slope $\frac{160 - 0}{4 - 0} = 40 //$