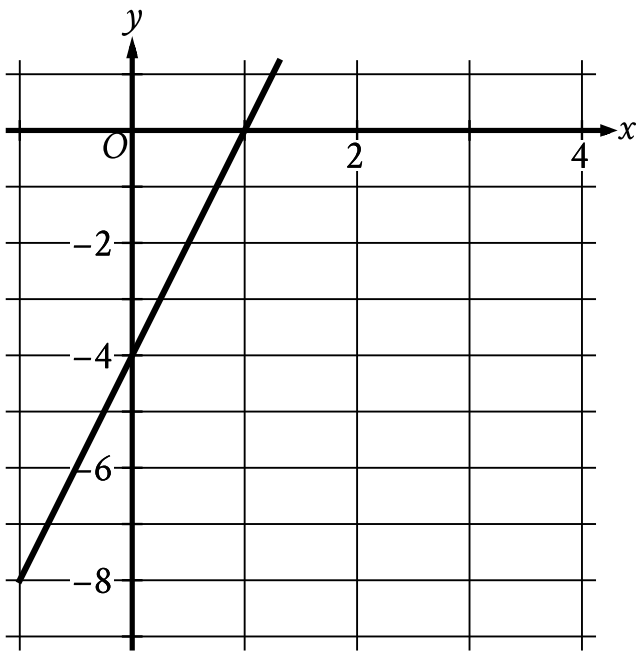
Question ID c23858ae

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Algebra	Linear functions	Easy

ID: c23858ae



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 ca256141

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Algebra	Linear functions	Easy

ID: ca256141

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 df6593de

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Algebra	Linear functions	Easy

ID: df6593de

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

Question ID cd929760

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Algebra	Linear functions	Easy

ID: cd929760

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. $f(x) = 60x + 120$

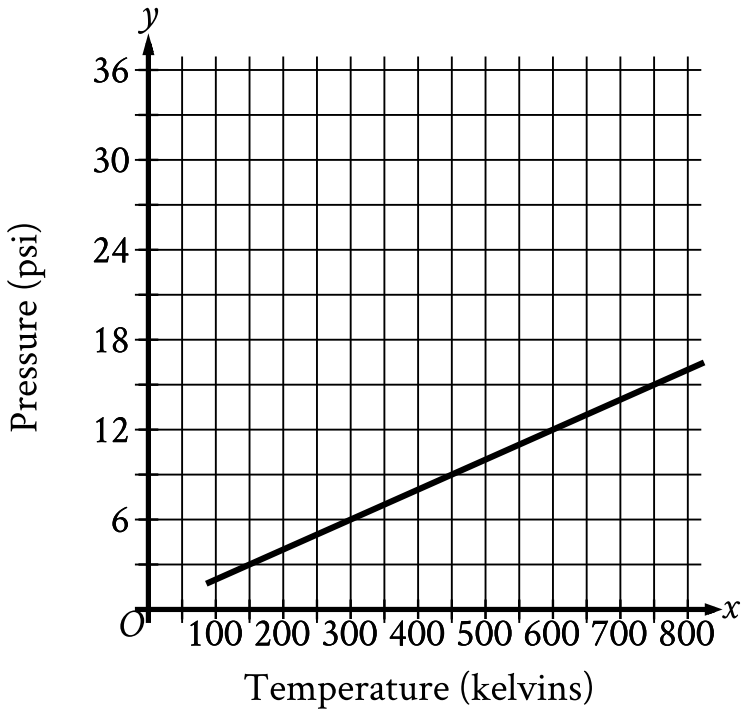
D. $f(x) = 60x - 120$

Question ID 129bfd10

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Algebra	Linear functions	Easy

ID: 129bfd10

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**

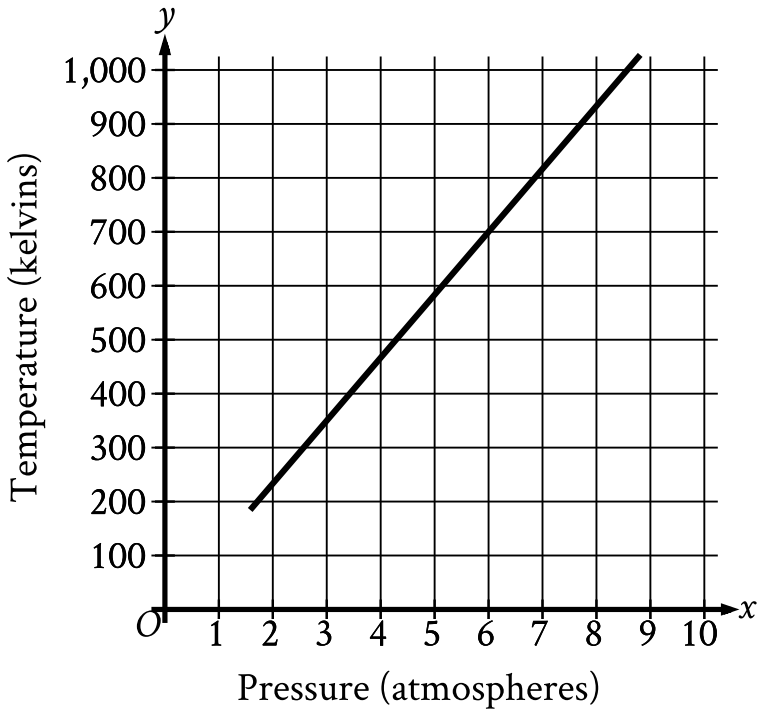
D. **600**

Question ID 31739d83

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Algebra	Linear functions	Easy

ID: 31739d83

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

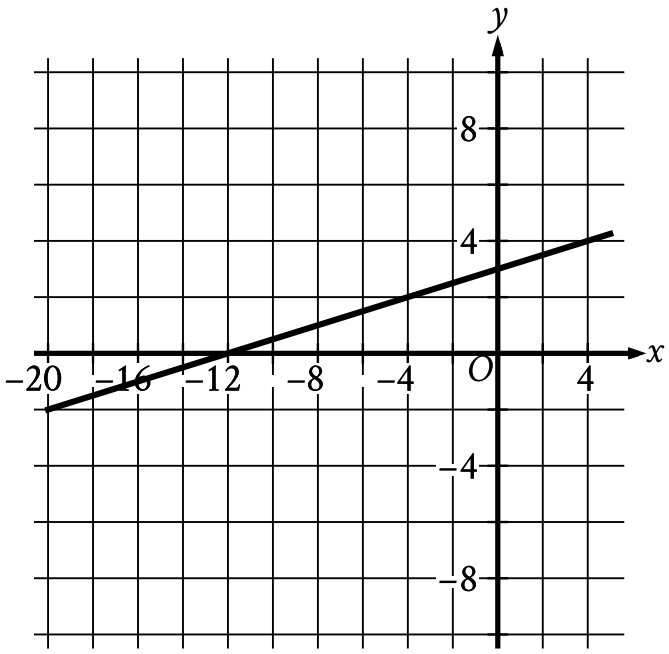
C. 700

D. 760

Question ID cc81b32d

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Algebra	Linear functions	Easy

ID: cc81b32d



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. $(\frac{1}{4}, 0)$

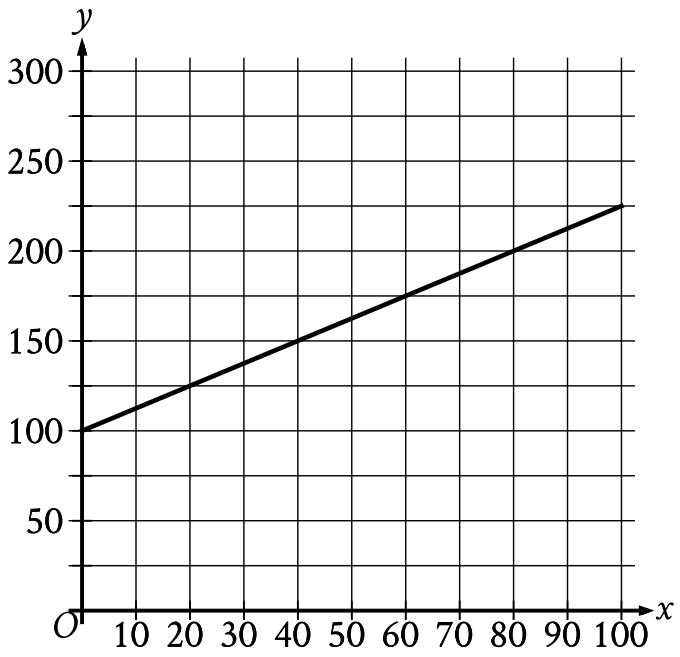
D. $(12, 0)$

Question ID 073954f4

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Algebra	Linear functions	Easy

ID: 073954f4

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

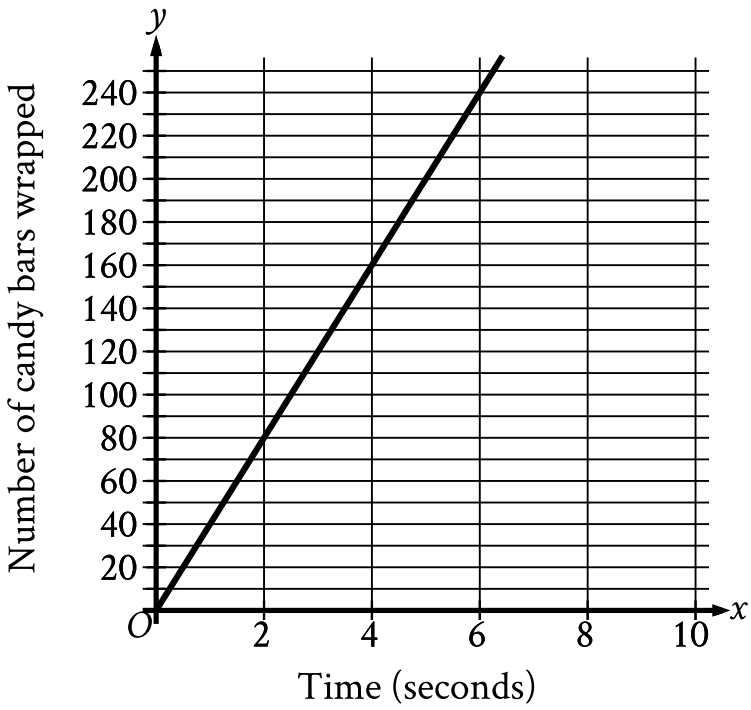
D. 225

Question ID 797aa129

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Algebra	Linear functions	Easy

ID: 797aa129

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

Question ID f22de2ba

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Algebra	Linear functions	Easy

ID: f22de2ba

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

Question ID 3a999574

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Algebra	Linear functions	Easy

ID: 3a999574

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. $y = 4.8x + 162$