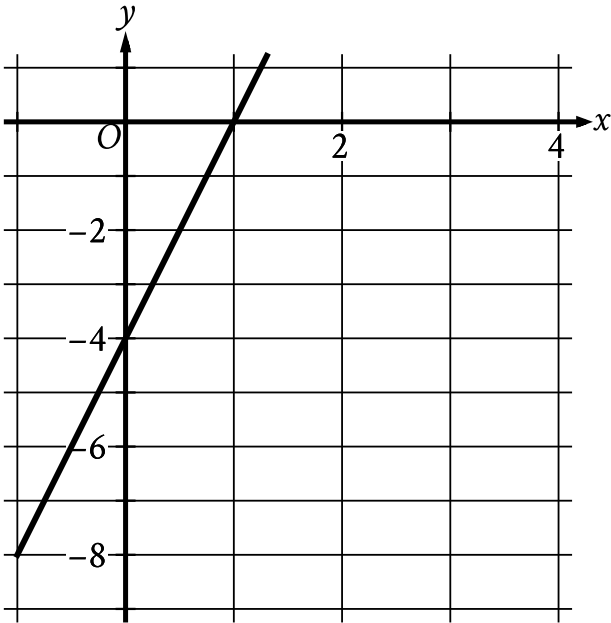


Question ID c23858ae

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Algebra	Linear functions	<div><div></div><div></div><div></div></div>

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	<div><div></div><div></div><div></div></div>

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	<div><div></div><div></div><div></div></div>

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	<div><div></div><div></div><div></div></div>

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?

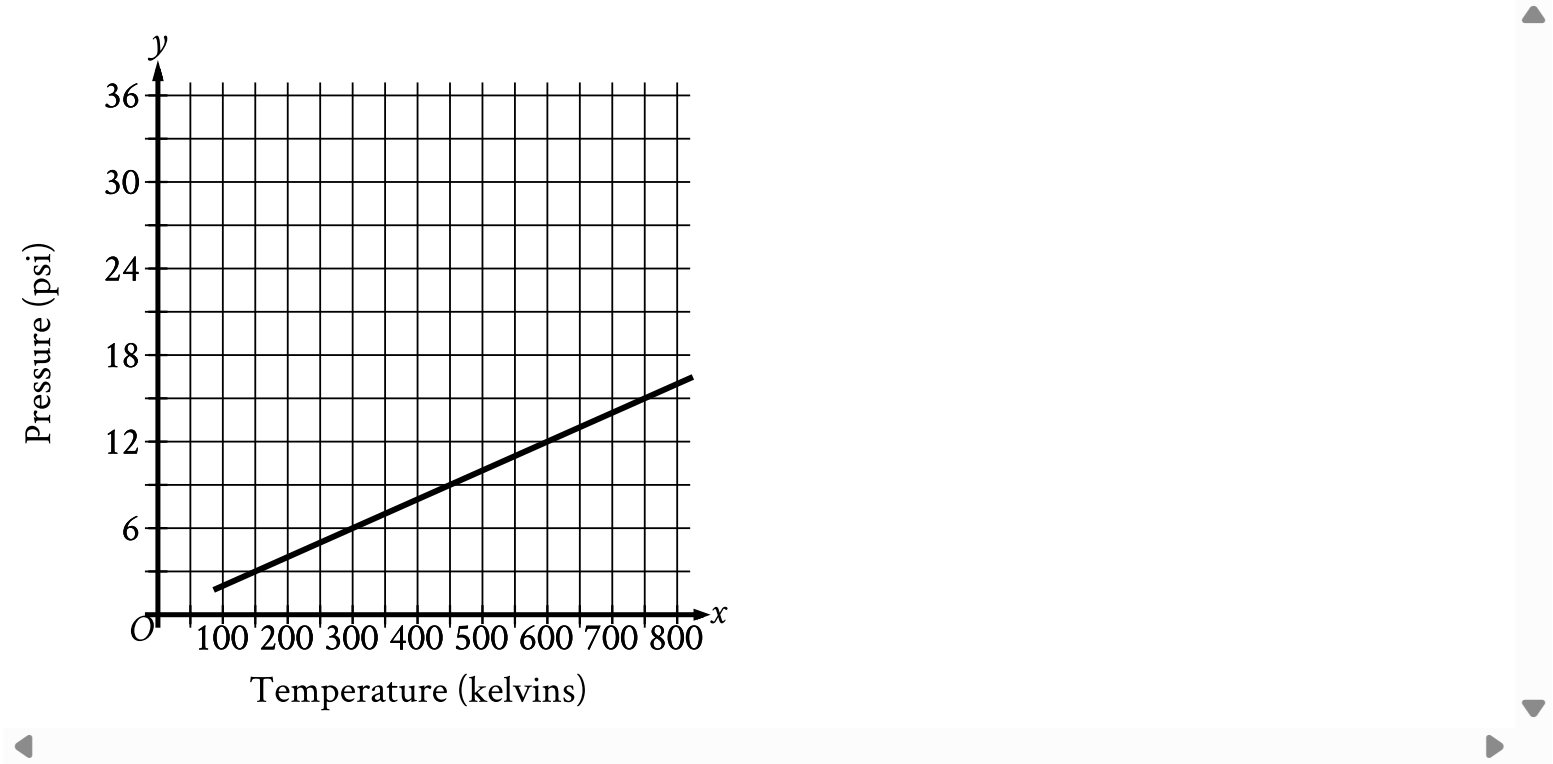
- A. $f(x) = x + 120$
- B. $f(x) = 60x$
- C. $f(x) = 60x + 120$
- D. $f(x) = 60x - 120$

Question ID 129bfd10

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Algebra	Linear functions	<div><div></div><div></div><div></div></div>

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?

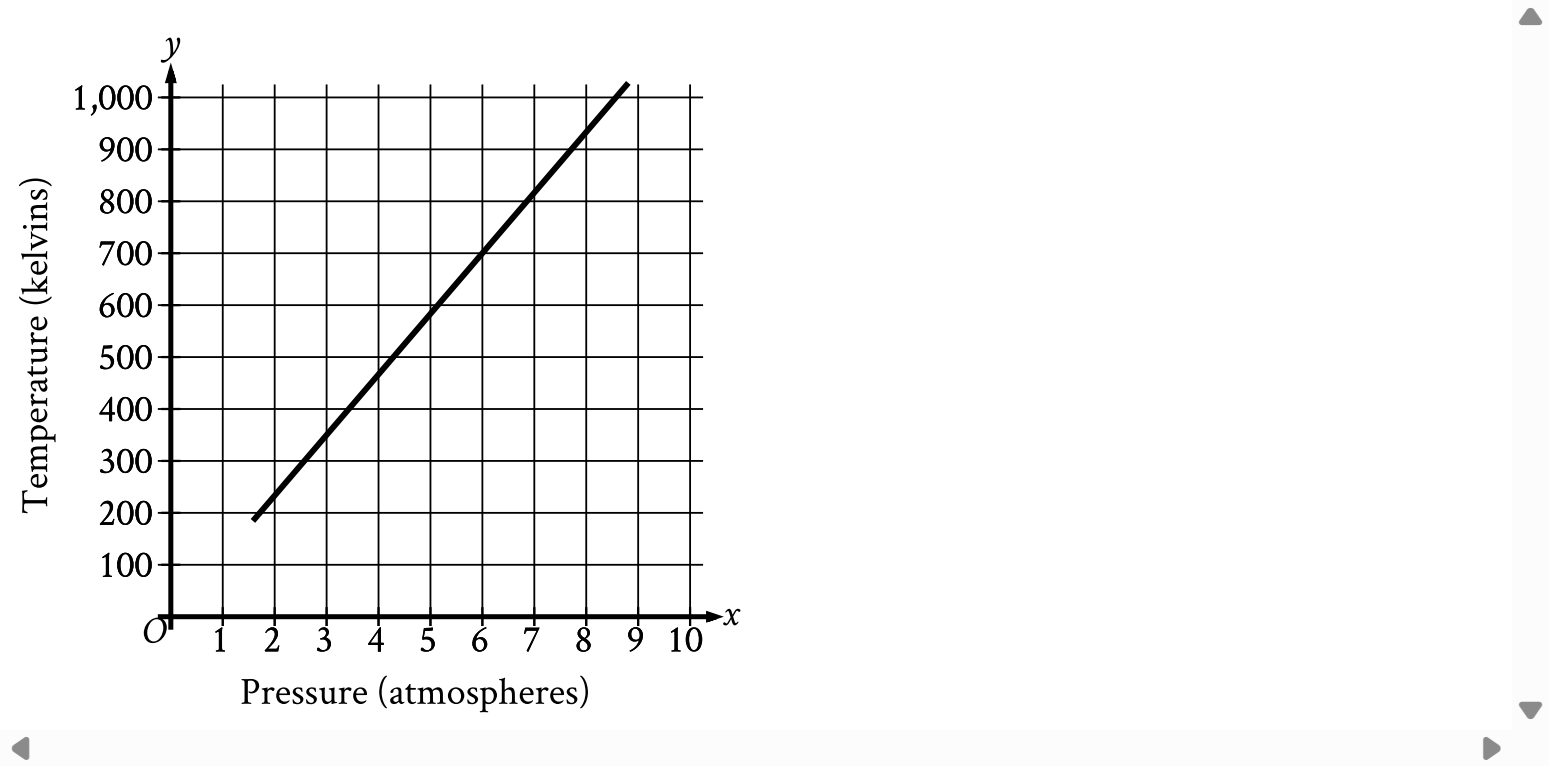
- A. 6
- B. 12
- C. 300
- D. 600

Question ID 31739d83

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Algebra	Linear functions	<div><div></div><div></div><div></div></div>

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.



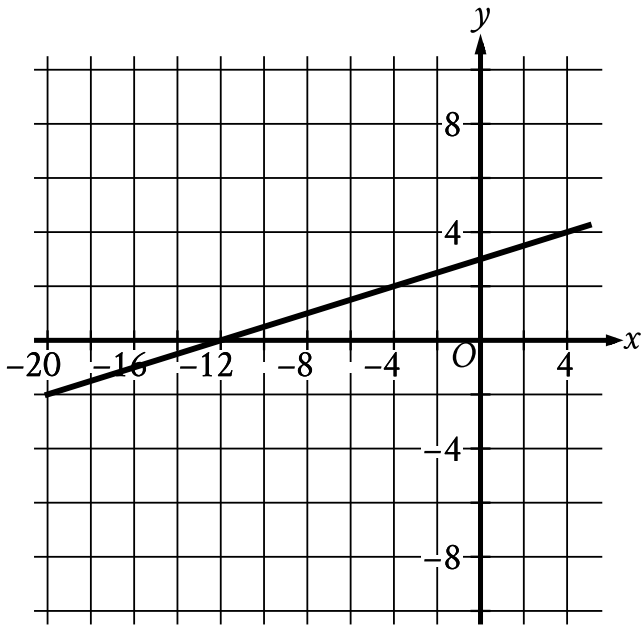
What is the estimated temperature, in kelvins, of the oxygen gas when its pressure is **6** atmospheres?

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

Question ID cc81b32d

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Algebra	Linear functions	<div><div></div><div></div><div></div></div>

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 ?

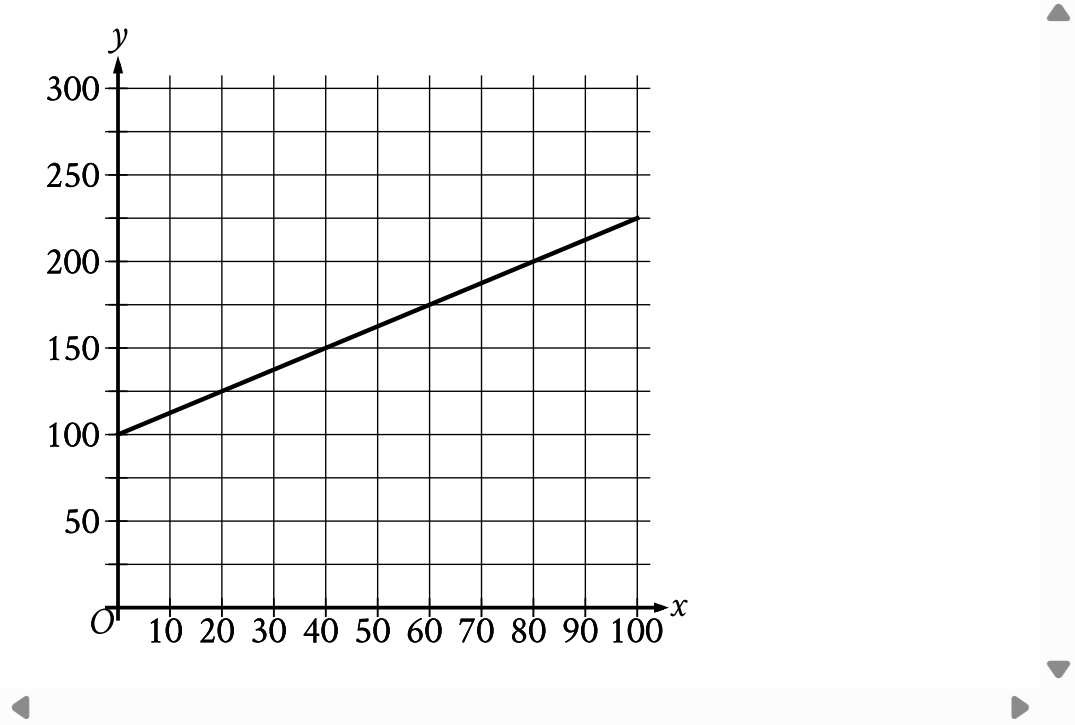
- A. $(-12, 0)$
- B. $(0, 0)$
- C. $(\frac{1}{4}, 0)$
- D. $(12, 0)$

Question ID 073954f4

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Algebra	Linear functions	<div><div></div><div></div><div></div></div>

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?

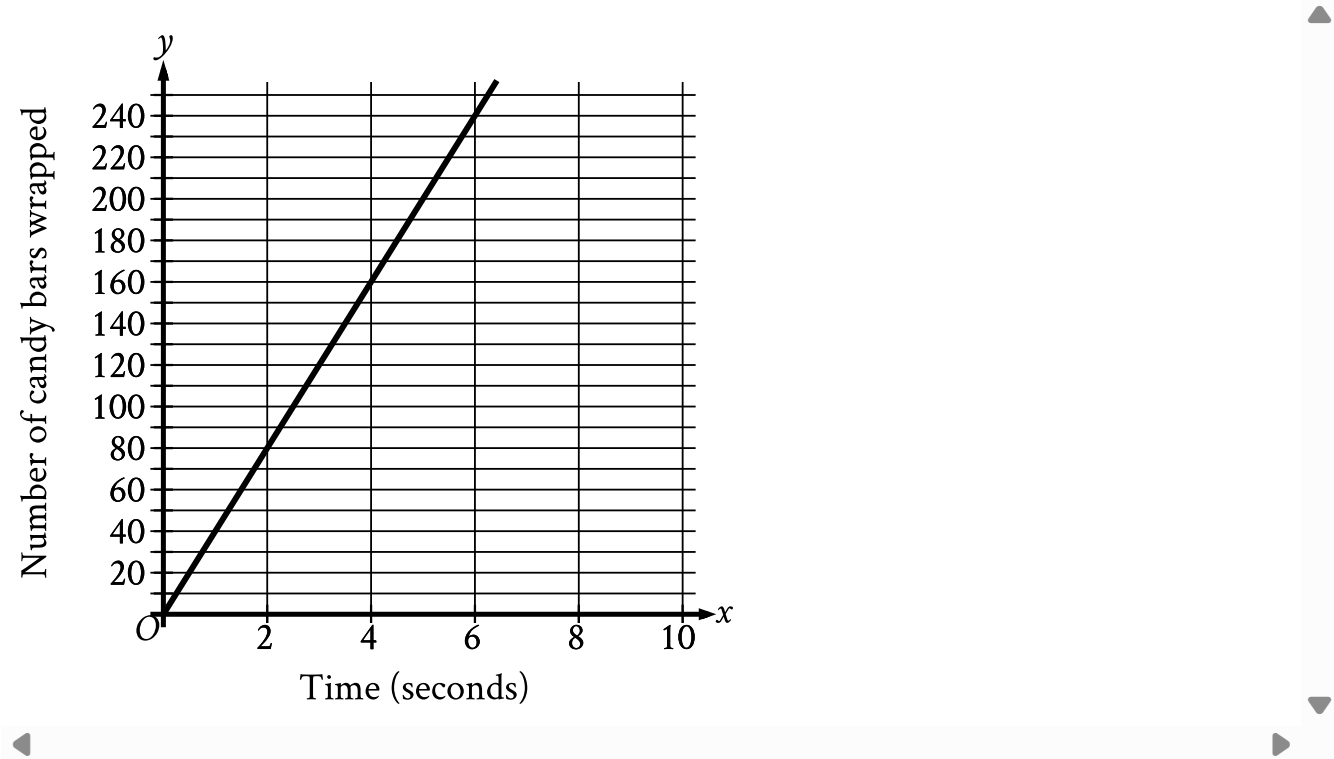
- A. 100
- B. 125
- C. 175
- D. 225

Question ID 797aa129

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Algebra	Linear functions	<div><div></div><div></div><div></div></div>

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	<div><div></div><div></div><div></div></div>

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	<div><div></div><div></div><div></div></div>

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. $y = 4.8x + 162$