

Question ID b2aee94a

Assessment	Test	Domain	Skill	Difficulty
PSAT/NMSQT & PSAT 10	Math	Advanced Math	Nonlinear functions	

ID: b2aee94a

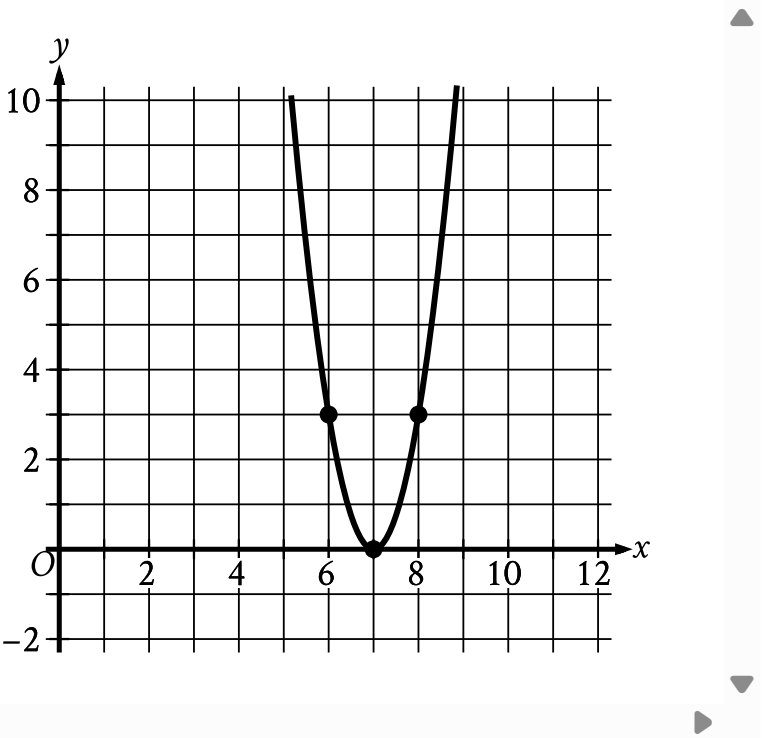
The function g is defined by $g(x) = |x + 18|$. What is the value of $g(4)$?

- A. -18
- B. -4
- C. 14
- D. 22

Question ID 6217cb62

Assessment	Test	Domain	Skill	Difficulty
PSAT/NMSQT & PSAT 10	Math	Advanced Math	Nonlinear functions	

ID: 6217cb62



The x-intercept of the graph shown is $(x, 0)$. What is the value of x ?

Question ID a3e4550c

Assessment	Test	Domain	Skill	Difficulty
PSAT/NMSQT & PSAT 10	Math	Advanced Math	Nonlinear functions	

ID: a3e4550c

The function f is defined by $f(x) = \frac{1}{6x}$. What is the value of $f(x)$ when $x = 3$?

- A. $\frac{1}{3}$
- B. $\frac{1}{6}$
- C. $\frac{1}{9}$
- D. $\frac{1}{18}$

Question ID 6f2658d4

Assessment	Test	Domain	Skill	Difficulty
PSAT/NMSQT & PSAT 10	Math	Advanced Math	Nonlinear functions	

ID: 6f2658d4

The function f is defined by $f(x) = 10x^2 - 32x - 152$. What is the value of $f(0)$?

- A. -152
- B. -32
- C. 0
- D. 10

Question ID cb2f4a8a

Assessment	Test	Domain	Skill	Difficulty
PSAT/NMSQT & PSAT 10	Math	Advanced Math	Nonlinear functions	

ID: cb2f4a8a

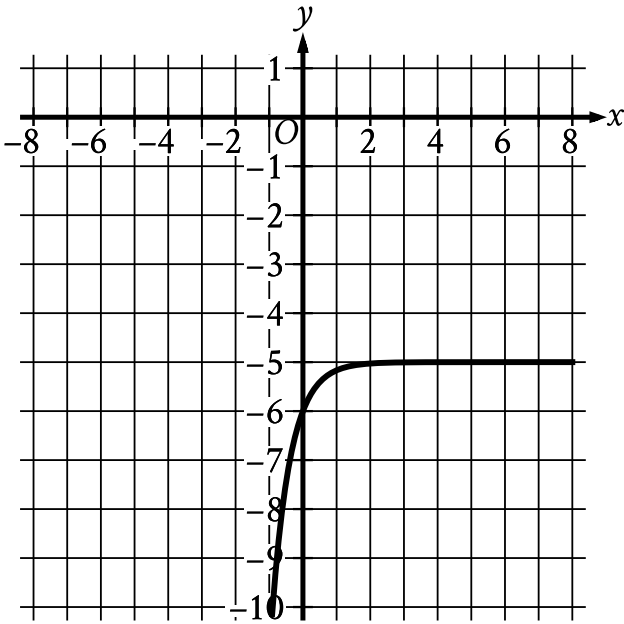
The function f is defined by $f(x) = 4 + \sqrt{x}$. What is the value of $f(144)$?

- A. 0
- B. 16
- C. 40
- D. 76

Question ID 1b1b1cbf

Assessment	Test	Domain	Skill	Difficulty
PSAT/NMSQT & PSAT 10	Math	Advanced Math	Nonlinear functions	

ID: 1b1b1cbf



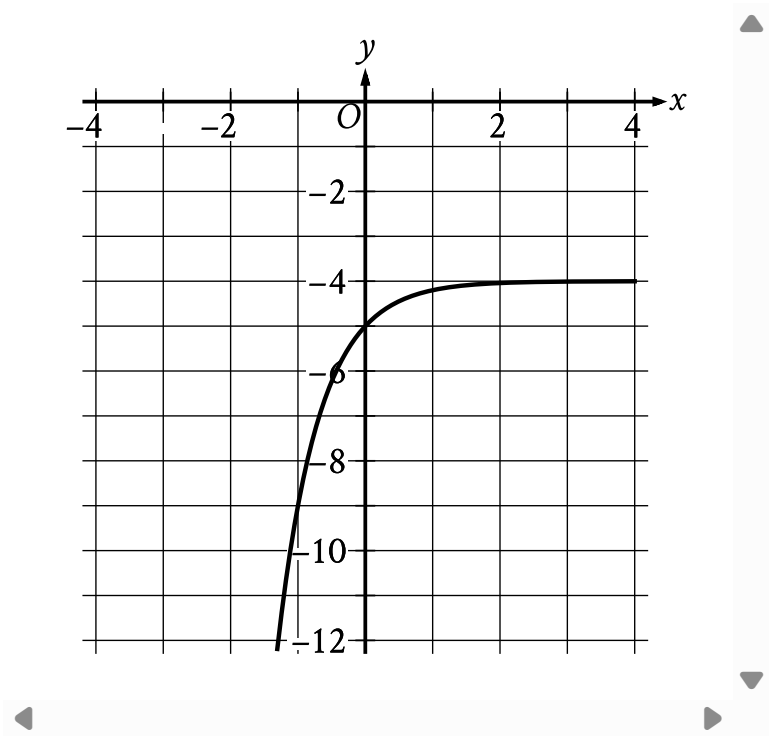
What is the y-intercept of the graph shown?

- A. $(0, -6)$
- B. $(-6, 0)$
- C. $(0, 0)$
- D. $(-5, -5)$

Question ID 606edc58

Assessment	Test	Domain	Skill	Difficulty
PSAT/NMSQT & PSAT 10	Math	Advanced Math	Nonlinear functions	

ID: 606edc58



What is the y -intercept of the graph shown?

- A. $(-1, -9)$
- B. $(0, -5)$
- C. $(0, -4)$
- D. $(0, 0)$

Question ID 34cf94ec

Assessment	Test	Domain	Skill	Difficulty
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ID: 34cf94ec

The function f is defined by $f(x) = x^3 + 9$. What is the value of $f(2)$?

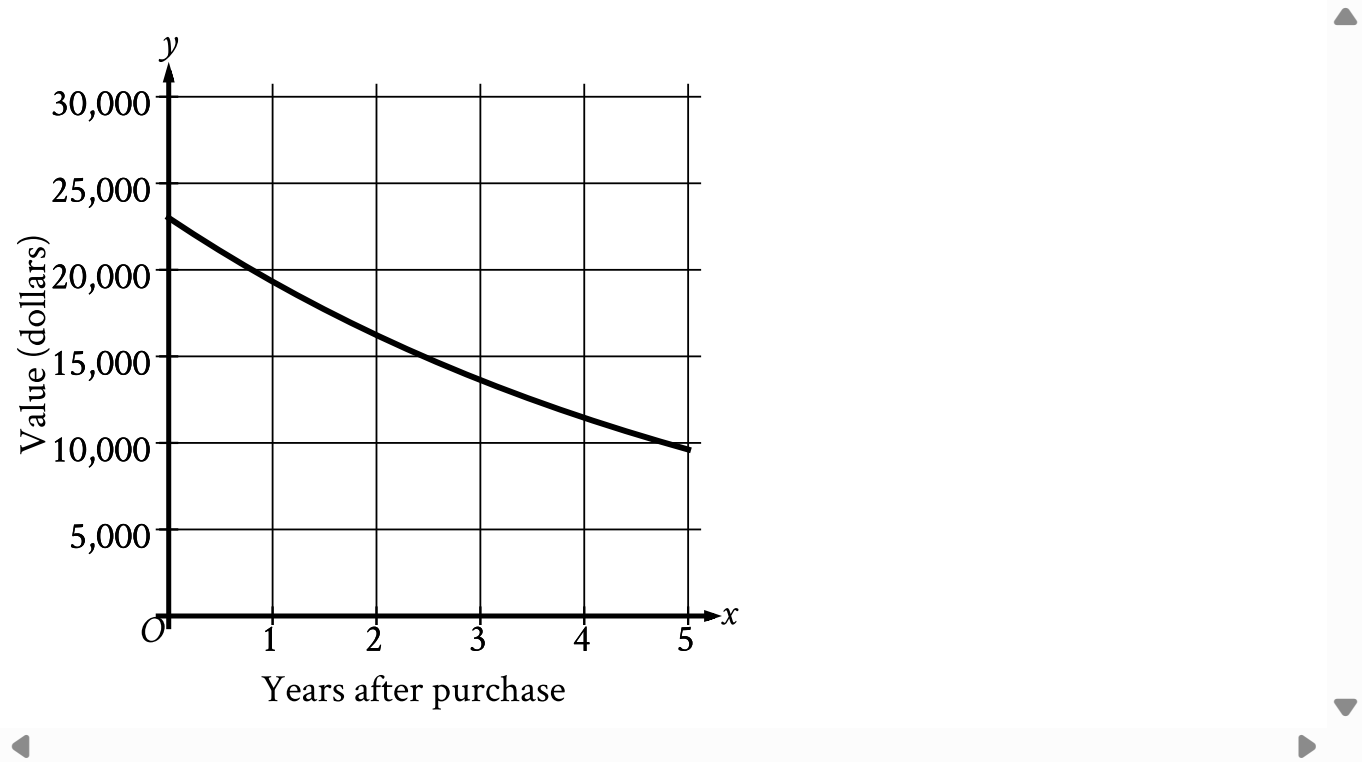
- A. 14
- B. 15
- C. 17
- D. 18

Question ID be579e5f

Assessment	Test	Domain	Skill	Difficulty
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ID: be579e5f

The graph shows the predicted value y , in dollars, of a certain sport utility vehicle x years after it is first purchased.



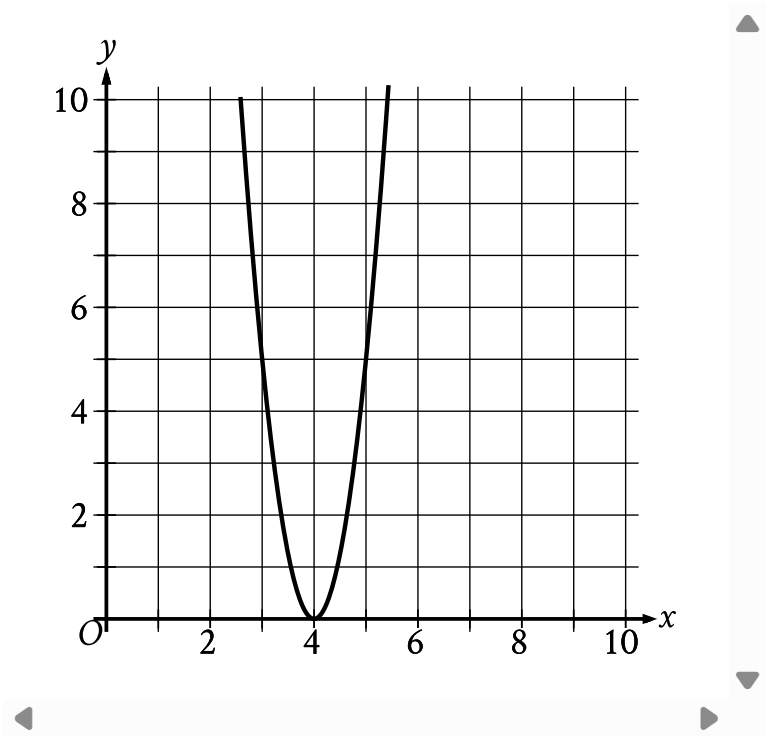
Which of the following is closest to the predicted value of the sport utility vehicle **3** years after it is first purchased?

- A. \$9,619
- B. \$13,632
- C. \$19,320
- D. \$23,000

Question ID 53730316

Assessment	Test	Domain	Skill	Difficulty
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ID: 53730316



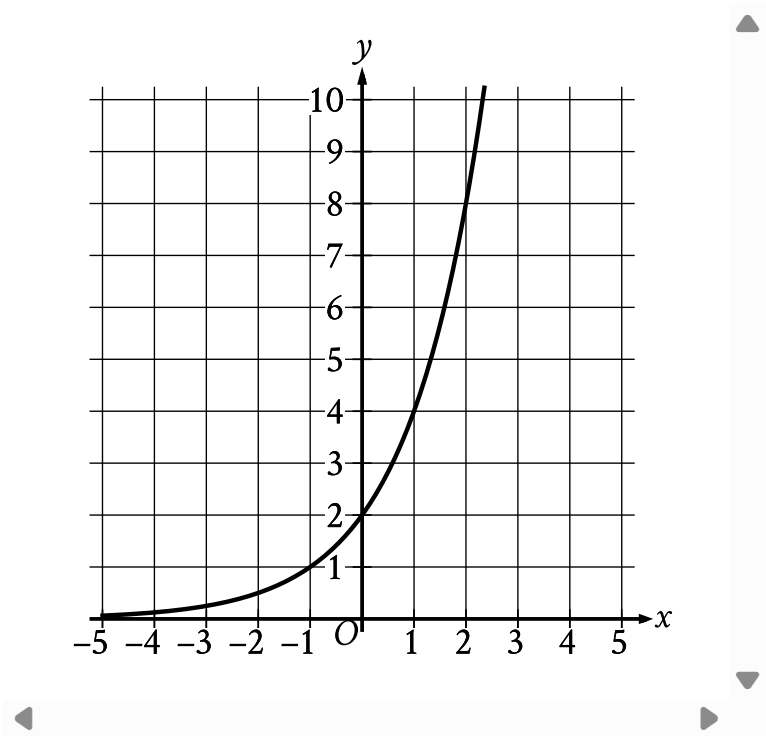
What is the x-intercept of the graph shown?

- A. $(-5, 0)$
- B. $(5, 0)$
- C. $(-4, 0)$
- D. $(4, 0)$

Question ID f92896a6

Assessment	Test	Domain	Skill	Difficulty
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ID: f92896a6



What is the y-intercept of the graph shown?

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

Question ID 288c81be

Assessment	Test	Domain	Skill	Difficulty
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ID: 288c81be

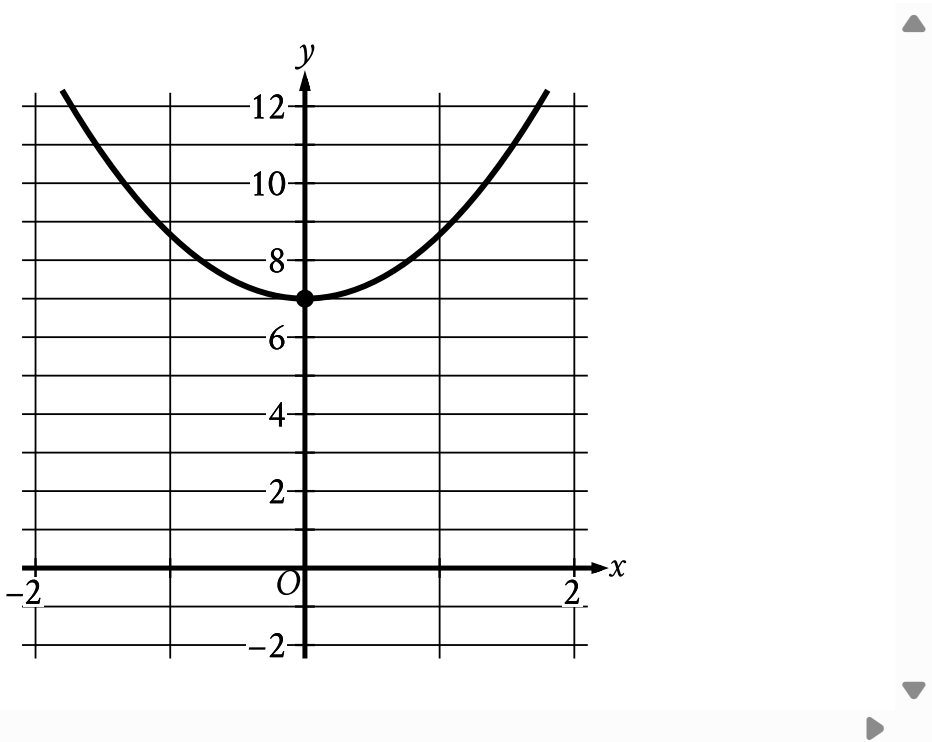
The function f is defined by $f(x) = x^3 + 15$. What is the value of $f(2)$?

- A. 20
- B. 21
- C. 23
- D. 24

Question ID 3cc0acf5

Assessment	Test	Domain	Skill	Difficulty
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ID: 3cc0acf5



The parabola shown intersects the y -axis at the point (x, y) . What is the value of y ?

Question ID 11066939

Assessment	Test	Domain	Skill	Difficulty
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ID: 11066939

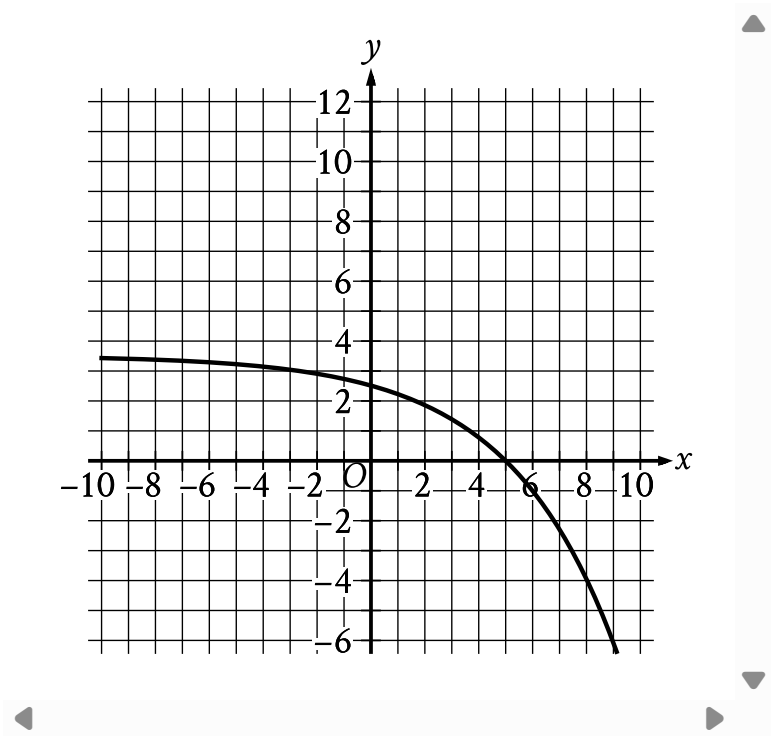
The function f is defined by $f(x) = 5x^2$. What is the value of $f(8)$?

- A. 40
- B. 50
- C. 80
- D. 320

Question ID 77b35575

Assessment	Test	Domain	Skill	Difficulty
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ID: 77b35575



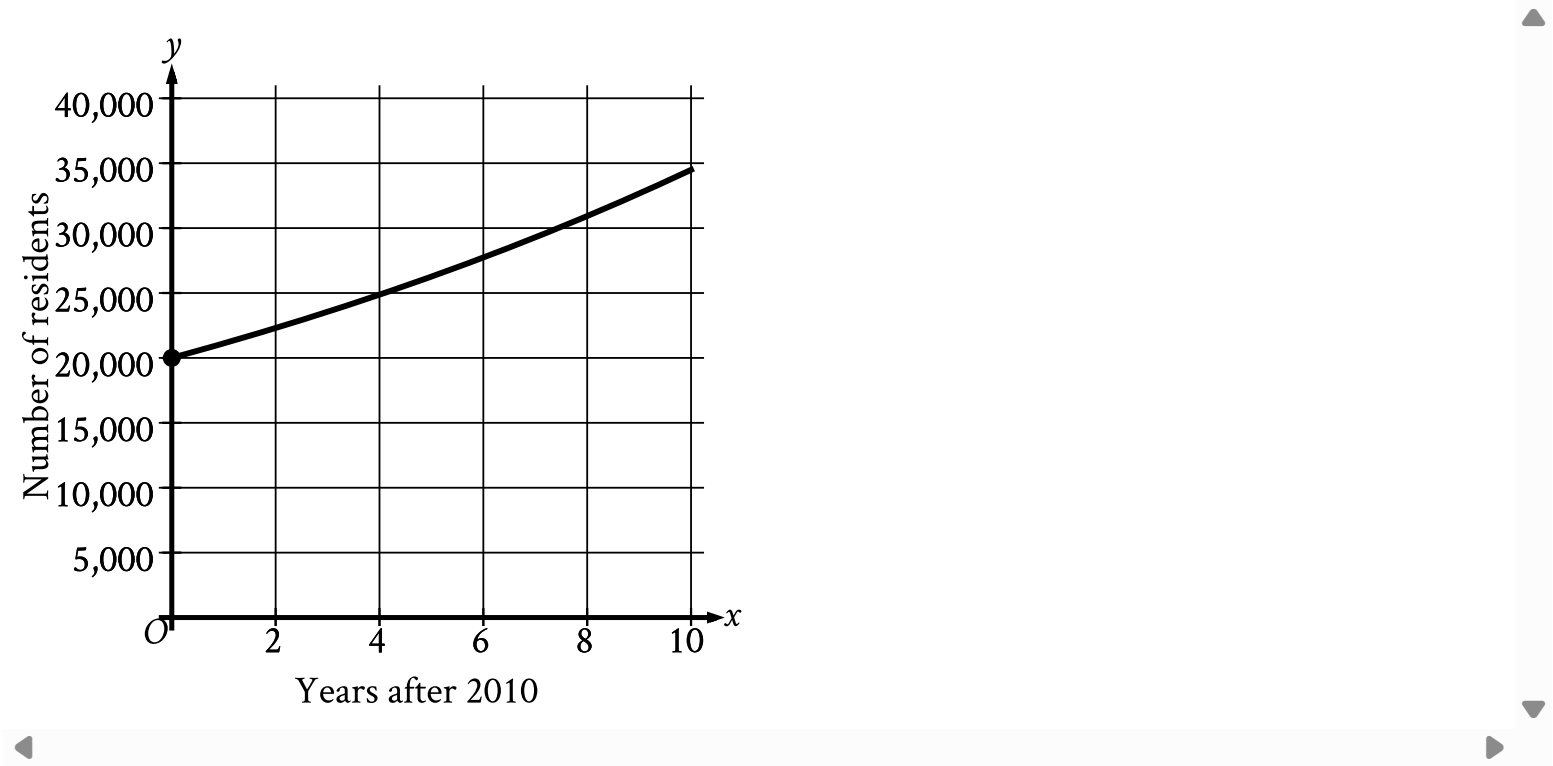
What is the x-intercept of the graph shown?

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

Question ID ecf4620a

Assessment	Test	Domain	Skill	Difficulty
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ID: ecf4620a



The graph shown models the number of residents of a certain city x years after **2010**. How many residents does this model estimate the city had in **2010**?

- A. 0
- B. 2,000
- C. 20,000
- D. 25,000

Question ID 3189516f

Assessment	Test	Domain	Skill	Difficulty
PSAT/NMSQT & PSAT 10	Math	Advanced Math	Nonlinear functions	

ID: 3189516f

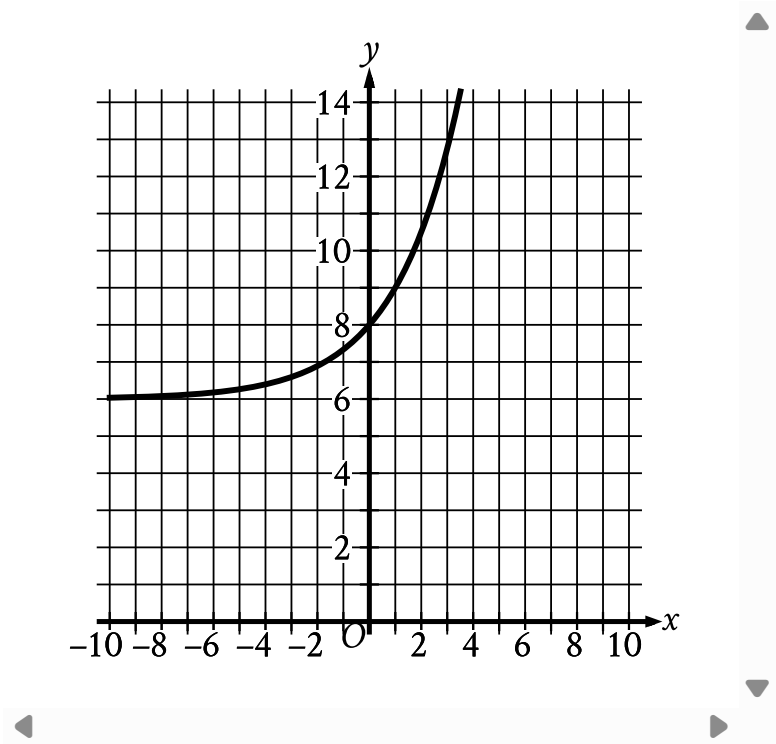
The function g is defined by $g(x) = x^2 + 9$. For which value of x is $g(x) = 25$?

- A. 4
- B. 5
- C. 9
- D. 13

Question ID a2166248

Assessment	Test	Domain	Skill	Difficulty
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ID: a2166248



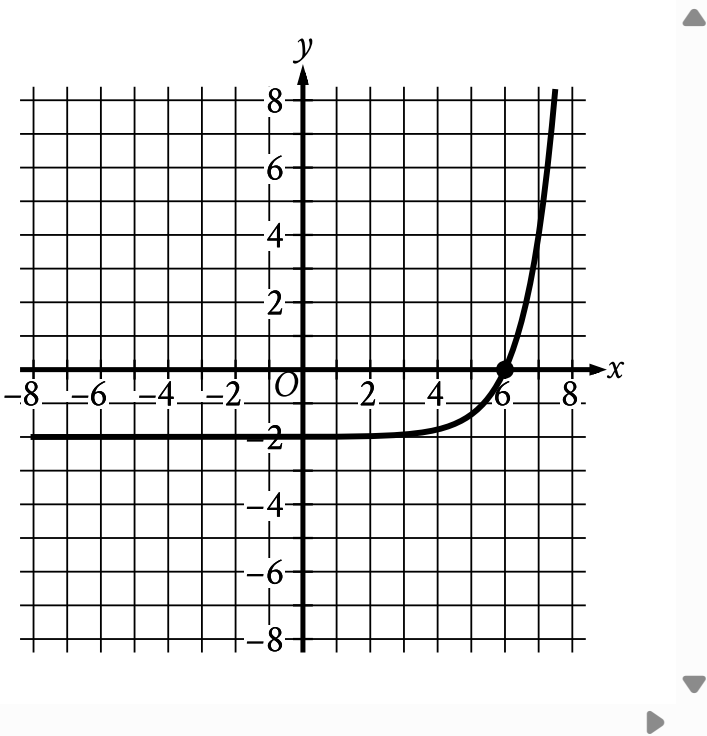
What is the y-intercept of the graph shown?

- A. $(-8, 0)$
- B. $(-6, 0)$
- C. $(0, 6)$
- D. $(0, 8)$

Question ID 5b574c25

Assessment	Test	Domain	Skill	Difficulty
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ID: 5b574c25



What is the x -coordinate of the x -intercept of the graph shown?

Question ID 9888ca87

Assessment	Test	Domain	Skill	Difficulty
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ID: 9888ca87

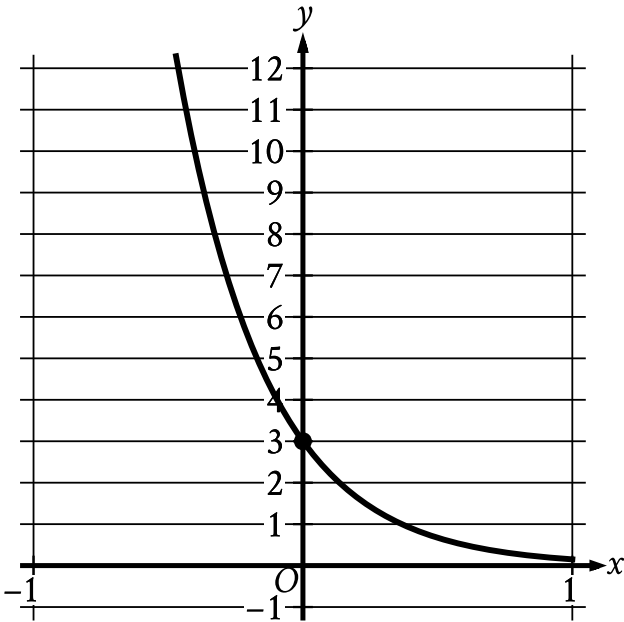
The function f is defined by $f(x) = \frac{16}{x}$. What is the value of $f(x)$ when $x = 17$?

- A. $\frac{16}{17}$
- B. $\frac{17}{16}$
- C. 16
- D. 17

Question ID 4a05c831

Assessment	Test	Domain	Skill	Difficulty
PSAT/NMSQT & PSAT 10	Math	Advanced Math	Nonlinear functions	

ID: 4a05c831

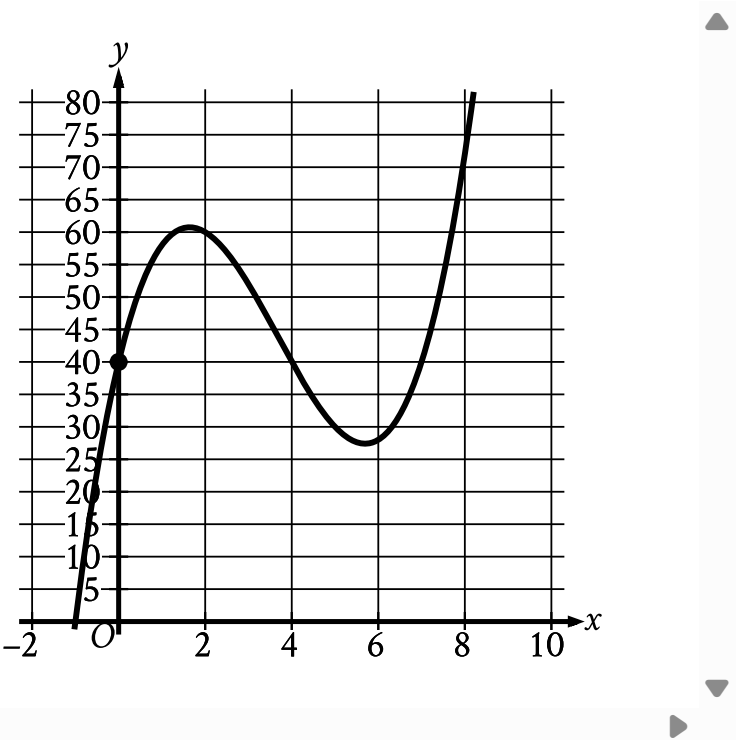


The graph of the exponential function f is shown, where $y = f(x)$. The y -intercept of the graph is $(0, y)$. What is the value of y ?

Question ID 9cc38e5f

Assessment	Test	Domain	Skill	Difficulty
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ID: 9cc38e5f



The y -intercept of the graph shown is (x, y) . What is the value of y ?