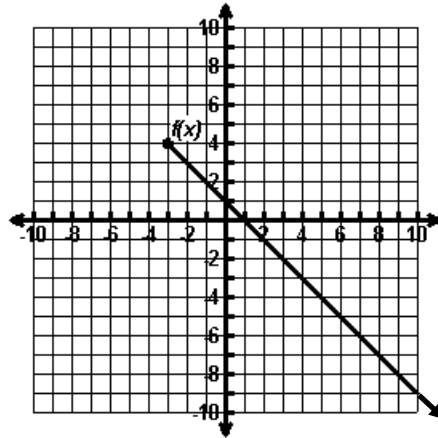




Identifying Domain and Range

Lesson Quiz

1 The graph of $f(x)$ is shown below.

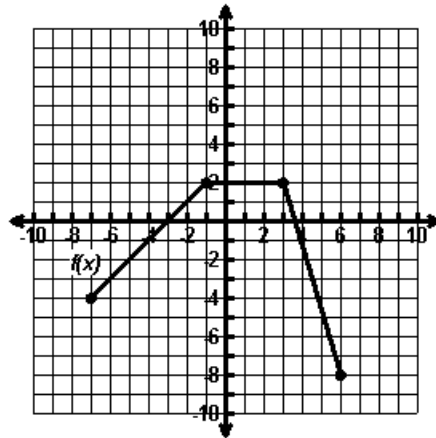


What is the domain of the function?

- A** $x > -3$
- B** $x \geq -3$
- C** $y \leq 4$
- D** $y < 4$



2 The graph of $f(x)$ is shown below.



What is the range of the function?

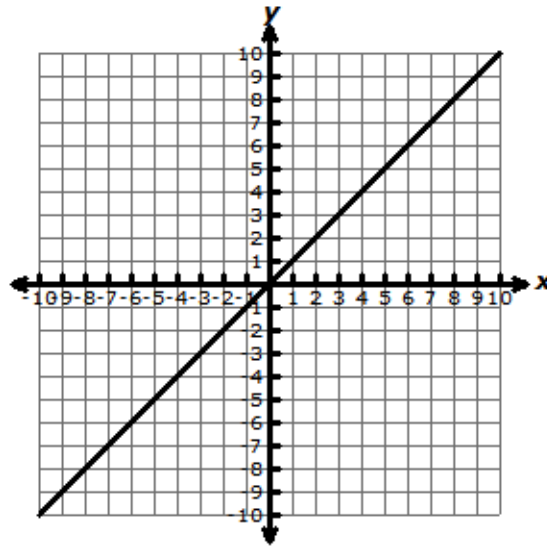
- A $-7 \leq x \leq 6$
- B $-7 < x < 6$
- C $-8 < f(x) < 2$
- D $-8 \leq f(x) \leq 2$

3 The number of fish in a pond doubles every day. The function $f(d) = 40(2)^d$, where d represents the number of days, describes the number of fish in the pond on any given day. Which statement best describes the domain and range of this function?

- A The domain is $40 \leq f(d) < \infty$ and the range is $0 \leq d < \infty$.
- B The domain is $0 \leq d < \infty$ and the range is $40 \leq f(d) < \infty$.
- C The domain is $-\infty < d < \infty$ and the range is $-\infty < f(d) < \infty$.
- D The domain is $-\infty < d < \infty$ and the range is $0 < f(d) < \infty$.



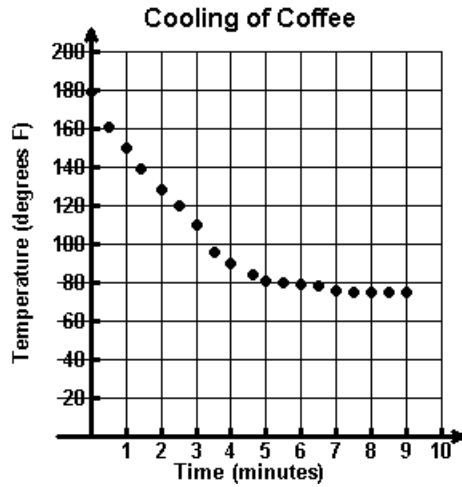
4 What is the domain of the function shown on the graph?



- A $-10 < x < 10$
- B $-\infty < x < \infty$
- C $-10 \leq x \leq 10$
- D $0 < x \leq 10$



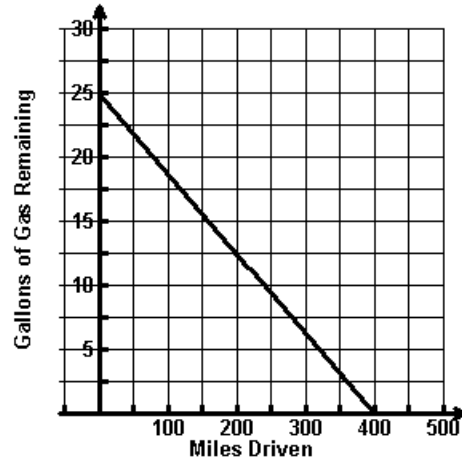
- 5 The temperature of a cup of coffee was measured until the coffee cooled to room temperature. Which of the following best describes the data shown on the graph?



- A A reasonable domain for the data is from 0 to 9 minutes.
- B A reasonable domain for the data is from 70 to 180 degrees.
- C A reasonable range for the data is from 0 to 180 degrees.
- D A reasonable range for the data is from 70 to 200 degrees.



- 6 Emilio's truck has a gas tank that holds 25 gallons of gas and can travel 400 miles without refilling the gas tank. The graph below shows the amount of gas remaining in Emilio's truck after he has driven a certain number of miles. Which of the following best describes a reasonable range for this situation?

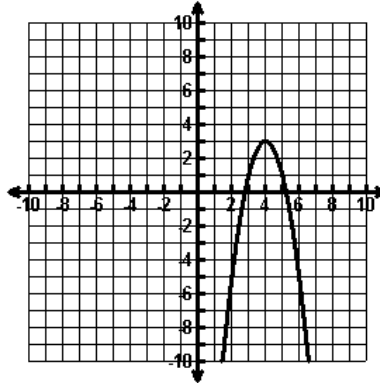


- A All real numbers greater than or equal to 0 and less than or equal to 400
- B All real numbers greater than or equal to 0 and less than or equal to 25
- C All real numbers less than or equal to 25
- D All real numbers less than or equal to 400
-
- 7 Which of the following is the best representation of the domain and range of the function $f(x) = 1.5(x - 5)^2 - 11$?
- A The domain is $-\infty < x < \infty$ and the range is $-11 \leq f(x) < \infty$.
- B The domain is $-5 < x < \infty$ and the range is $-11 \leq f(x) < \infty$.
- C The domain is $-\infty < x < \infty$ and the range is $-5 \leq f(x) < \infty$.
- D The domain is $-5 < x < 11$ and the range is $1.5 \leq f(x) < 5$.

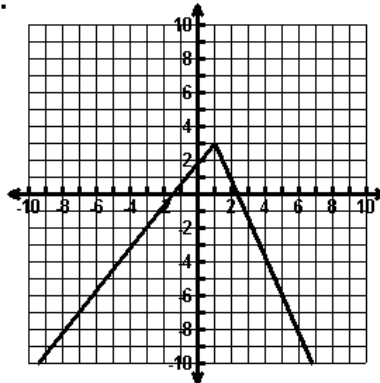


8 Which graphs have the range of $y \leq 3$?

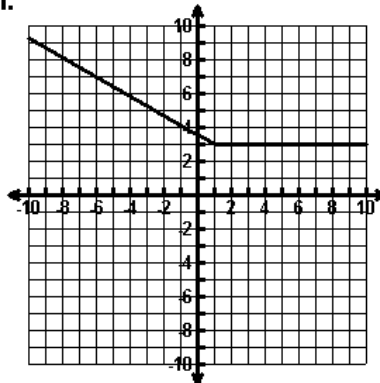
I.



II.



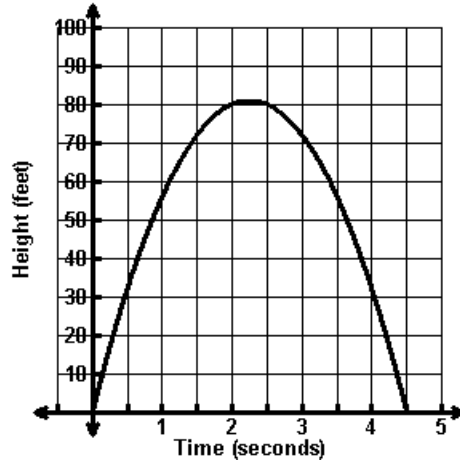
III.



- A I and II
- B I and III
- C II and III
- D I, II and III



- 9 A ball was projected into the air with an initial upward velocity of 72 feet per second. The quadratic function graphed below shows the height, h , of the ball t seconds after it was projected into the air.

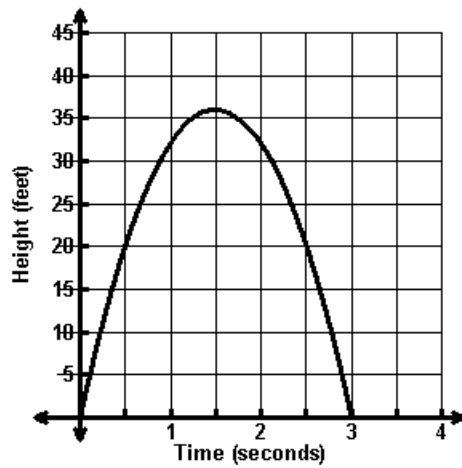


What is the domain of the function for this situation?

- A $0 < h < 80$
- B $0 \leq h \leq 80$
- C $0 \leq t \leq 4.5$
- D $0 < t < 4.5$



- 10** The height of a football kicked into the air is given by the function $h(t) = -16t^2 + 48t$, where h is the height of the ball in feet and t is time in seconds.

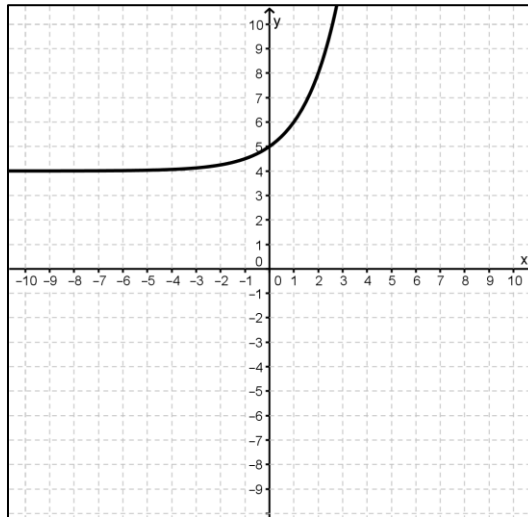


What is the range of the function?

- A** $0 \leq h \leq 3$
- B** $0 \leq t \leq 36$
- C** $h < 3$
- D** $t \leq 36$



11 The graph of exponential function $m(x)$ is shown.



Based on the graph, which of the following statements is true?

- A** The range is the set of all real numbers greater than 0.
- B** The domain is the set of all real numbers greater than or equal to -10 .
- C** The range is the set of all real numbers greater than 4.
- D** The domain is the set of all real numbers less than 3.



12 Which of the following graphs best represents a function with a domain of all real numbers greater than -4 and less than or equal to 6 ?

