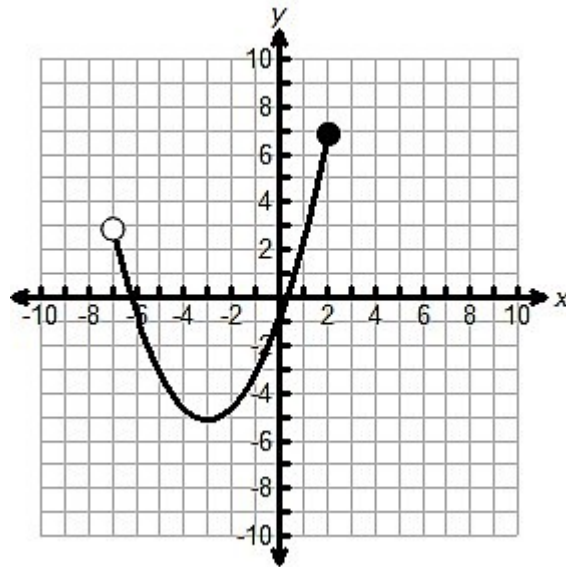


Domain and Range of a Quadratic Function

Some questions (c) 2017 by TEKS Resource System.
Some questions (c) 2017 by The Texas Education Agency.

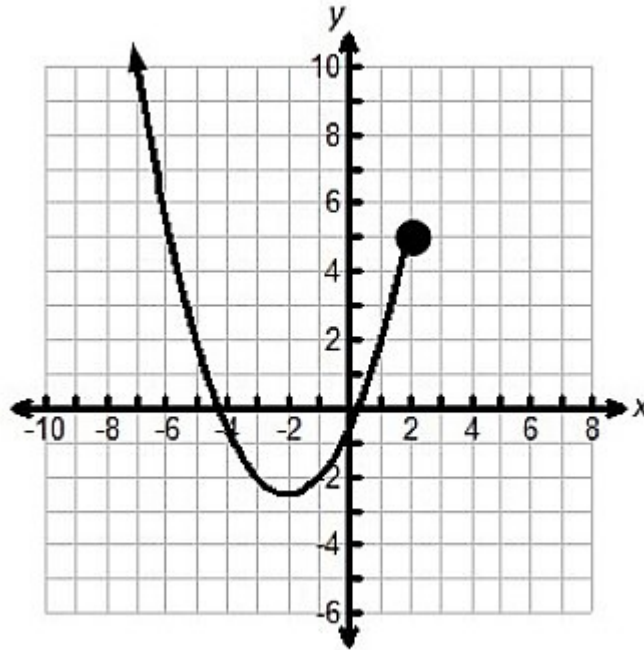
1 A quadratic function is shown below.



What are the domain and range of the quadratic function?

- A** Domain: $-5 \leq x \leq 7$
Range: $-7 < y \leq 2$
- B** Domain: $-7 < x \leq 2$
Range: $3 < y \leq 7$
- C** Domain: $3 < x \leq 7$
Range: $-7 < y \leq 2$
- D** Domain: $-7 < x \leq 2$
Range: $-5 \leq y \leq 7$

2 A quadratic function is shown on the graph below.

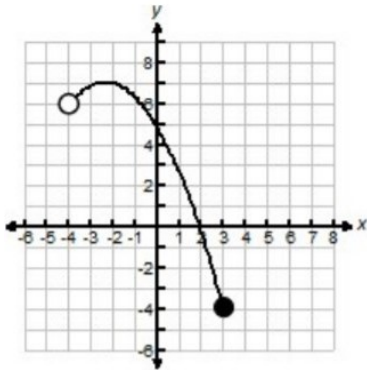


What are the domain and range for the quadratic function shown on the graph?

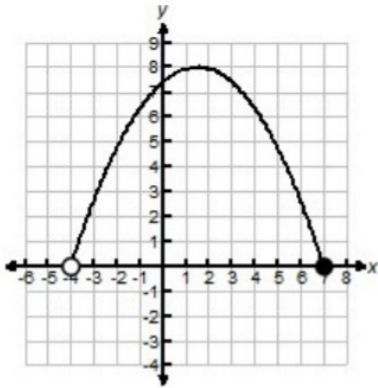
- A** Domain: $x \leq 2$
Range: $y \geq -2.5$
- B** Domain: $x < 2$
Range: $y > -2.5$
- C** Domain: $x \geq -2.5$
Range: $y \leq 2$
- D** Domain: $-7 \leq x \leq 2$
Range: $-2.5 \leq y \leq 5$

3 Which graph represents a function with a range of all real numbers greater than -4 and less than or equal to 7 ?

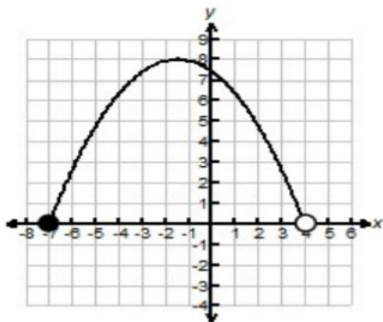
A



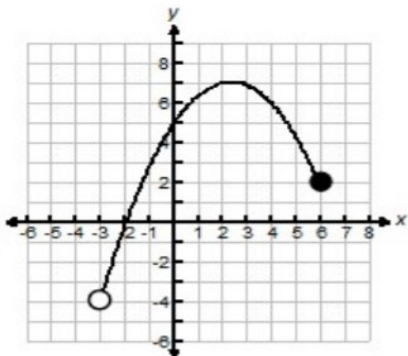
B



C

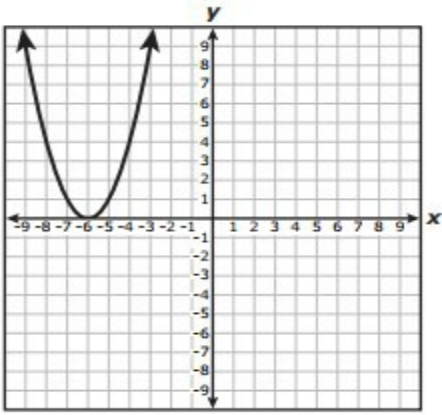


D

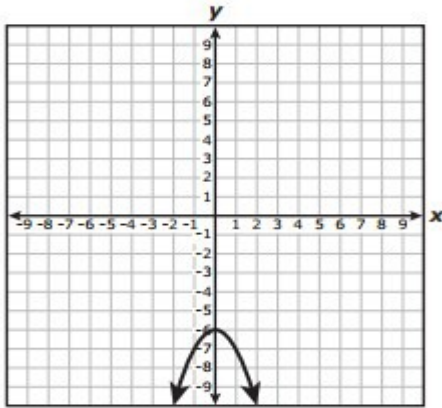


4 Which graph best represents a function with a range of all real numbers greater than or equal to -6?

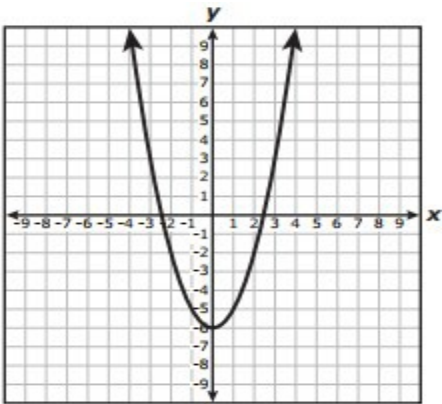
A



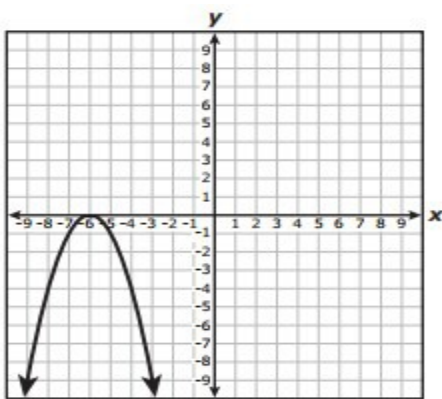
B



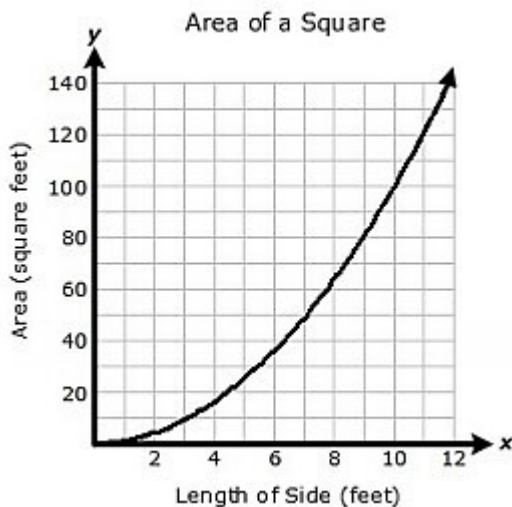
C



D



- 5 The graph shows the relationship between the area of a square in square feet, A , and the side length of the square in feet, s .

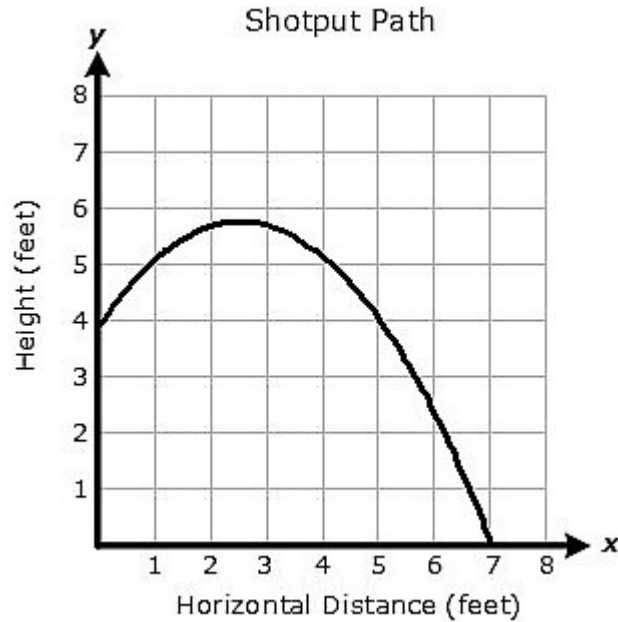


Which is a reasonable domain for this function?

- A $0 < s \leq 12$
- B $s > 0$
- C $-\infty < s < \infty$
- D $s \leq 12$

- 6 Landon competed in shotput at his school's field event. From shoulder height, Landon threw the shotput down the field and the referee marked the spot on the ground where it landed.

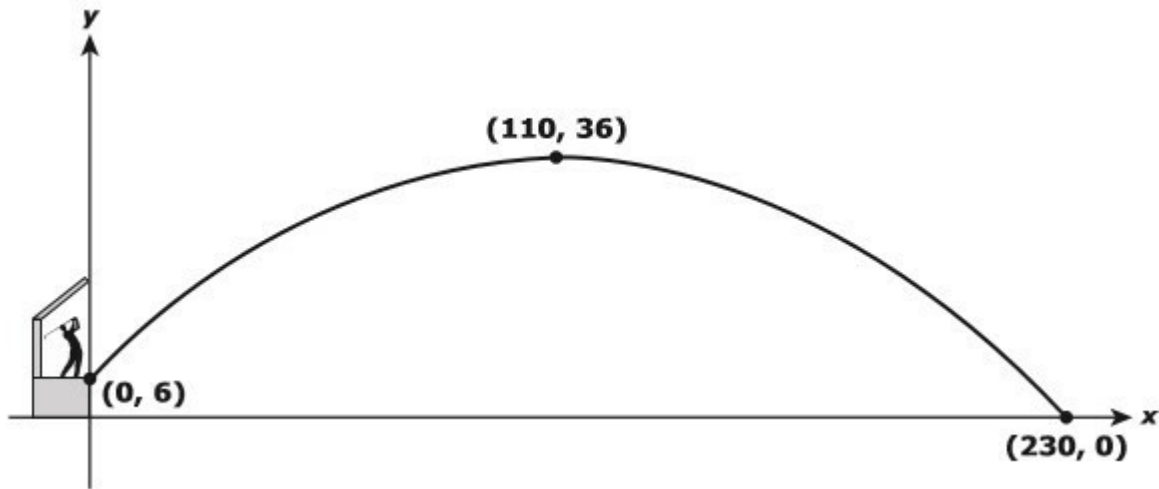
The graph shows the path of the shotput, where x represents the horizontal distance traveled by the shotput and y represents the height of the shotput.



What is the domain of the path of the ball?

- A $x \leq 7$
- B All real numbers greater than or equal to 0 and less than or equal to 7.
- C $0 \leq x \leq 5.75$
- D All real numbers less than or equal to 5.75.

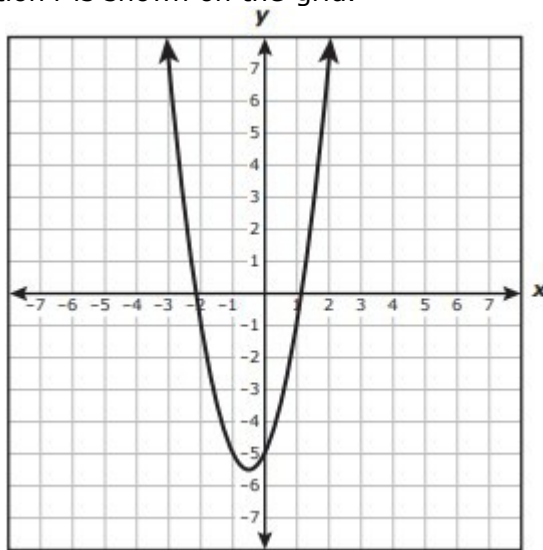
- 7 A golfer hit a golf ball from a tee box that is 6 yards above the ground. The graph shows the height in yards of the golf ball above the ground as a quadratic function of x , the horizontal distance in yards of the golf ball from the tee box.



What is the domain of the function for this situation?

- A) $0 \leq x \leq 230$
- B) $6 \leq y \leq 36$
- C) $0 \leq y \leq 36$
- D) $6 \leq x \leq 230$

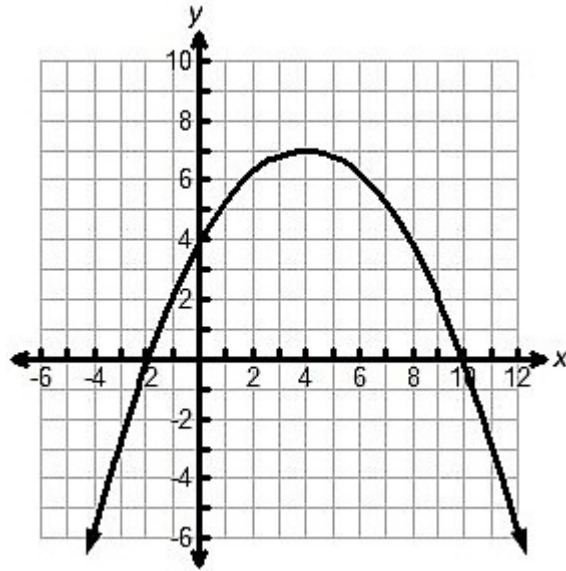
8 The graph of quadratic function f is shown on the grid.



Which of these best represents the domain of f ?

- A $-3 \leq x \leq 2$
- B All real numbers
- C $y \geq 5.5$
- D All real numbers less than -3 or greater than 2

9 A quadratic function is shown on the graph below.



What are the domain and range for the quadratic function shown on the graph?

- A** Domain: All real numbers
Range: All real numbers less than or equal to 7
- B** Domain: All real numbers greater than or equal to -5 and less than or equal to 12
Range: All real numbers greater than or equal to -6 and less than or equal to 7
- C** Domain: All real numbers less than or equal to 7
Range: All real numbers
- D** Domain: All real numbers
Range: All real numbers less than 7