

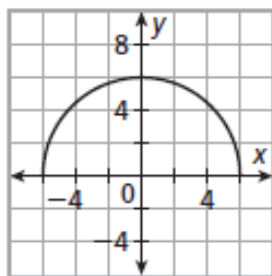
To determine the **Domain** ask yourself this question:

What are all the possible x values?

To determine the **Range** look at the graph of the function to determine the possible y values!

1.

The graph below shows a function.

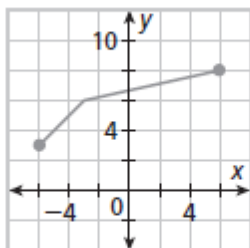


What is the domain of the function?

- (A)  $x \geq 0$
- (B)  $x \geq -6$
- (C)  $0 \leq x \leq 6$
- (D)  $-6 \leq x \leq 6$

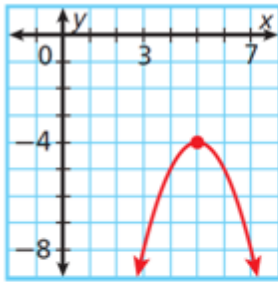
2.

A function is graphed below.



What is the domain and range of the function?

3.



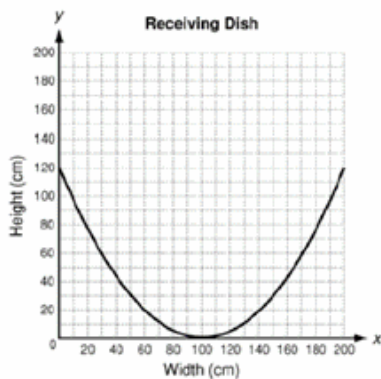
Identify the vertex.

Does the function have a minimum or maximum?  
What is it?

Find the domain and range.

4.

Radio telescopes are built in the shape of a parabola. The graph below shows a radio telescope dish in cross-section. Select the best answer.



**A.** What is the vertex of this parabola?

- A (0, 120)      C (200, 120)  
B (100, 0)      D (100, 120)

**B.** What are the domain and range of this function?

F D: all real numbers

R: all real numbers

G D:  $x \geq 0$ , R:  $y \geq 0$

H D:  $x \leq 200$  R:  $y \leq 120$

J D:  $0 \leq x \leq 200$  R:  $0 \leq y \leq 120$

**C.** Which of the following could be the equation used by engineers to construct the radio telescope dish?

A  $y = 1.2x + 120$

B  $y = -1.2x + 120$

C  $y = 0.012x^2 - 2.4x + 120$

D  $y = -0.012x^2 - 2.4x + 120$