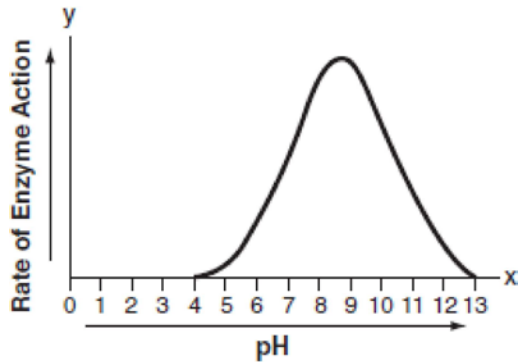


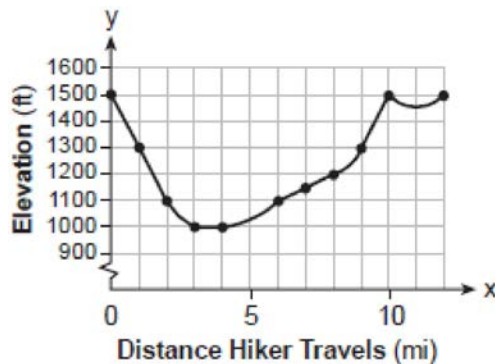
**A2.A.51: Domain and Range 2: Determine the domain and range of a function from its graph**

- 1 The effect of pH on the action of a certain enzyme is shown on the accompanying graph.



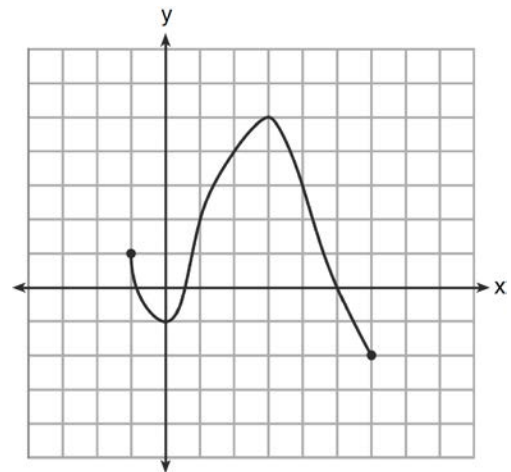
What is the domain of this function?

- 2 The accompanying graph shows the elevation of a certain region in New York State as a hiker travels along a trail.

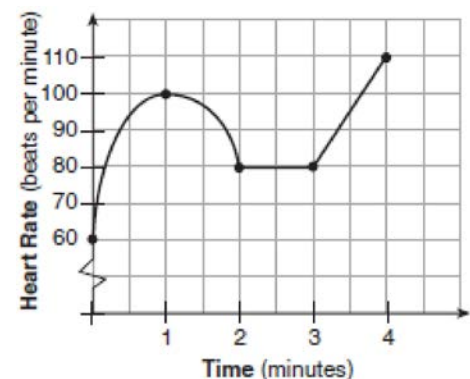


What is the domain of this function?

- 3 What is the domain of the function shown below?

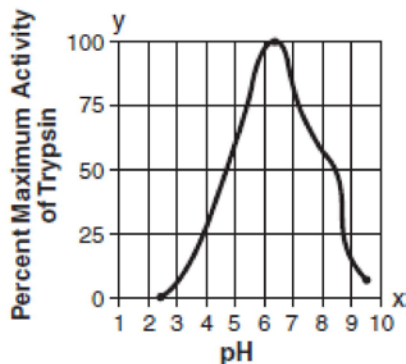


- 4 The accompanying graph shows the heart rate, in beats per minute, of a jogger during a 4-minute interval.



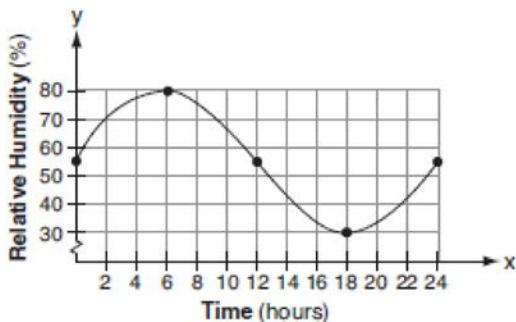
What is the range of the jogger's heart rate during this interval?

- 5 Data collected during an experiment are shown in the accompanying graph.



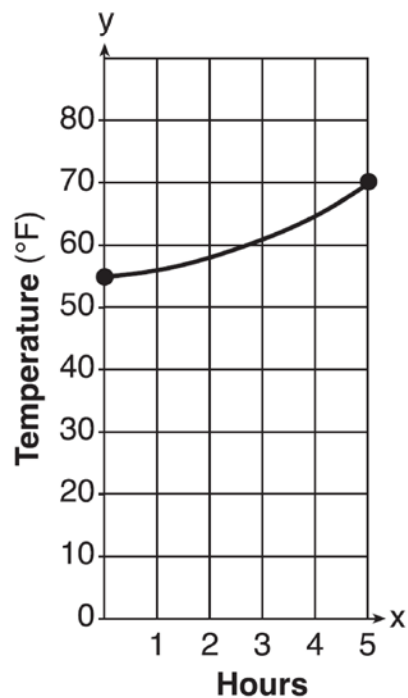
What is the range of this set of data?

- 6 A meteorologist drew the accompanying graph to show the changes in relative humidity during a 24-hour period in New York City.



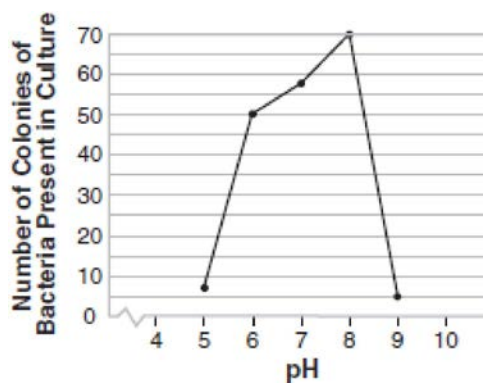
What is the range of this set of data?

- 7 The air temperature in Dallas, Texas, over a 5-hour period is shown in the accompanying graph.



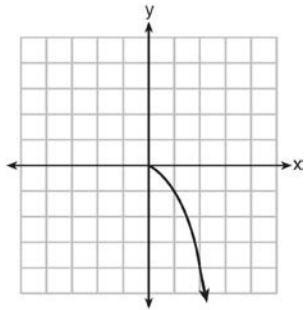
What is the range of this set of data?

- 8 The accompanying graph illustrates the presence of a certain strain of bacteria at various pH levels.

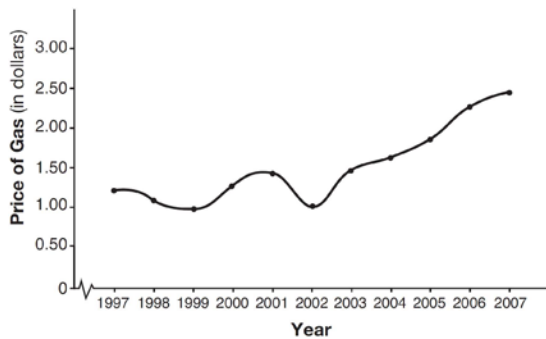


What is the range of this set of data?

- 9 What is the range of the function shown below?

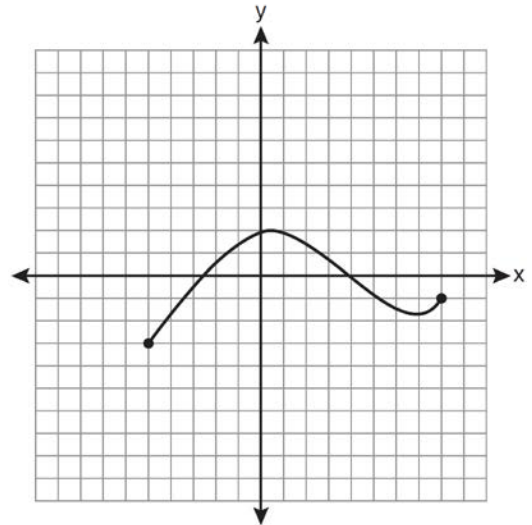


- 10 The graph below shows the average price of gasoline, in dollars, for the years 1997 to 2007.



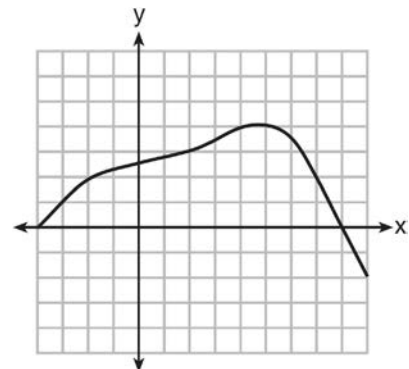
What is the approximate range of this graph?

- 11 The graph below represents the function  $y = f(x)$ .



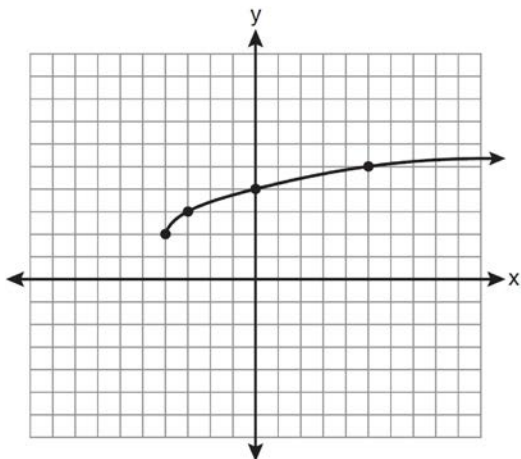
State the domain and range of this function.

- 12 Which value is in the domain of the function graphed below, but is *not* in its range?

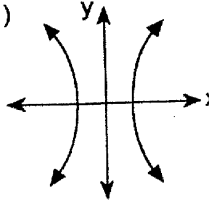
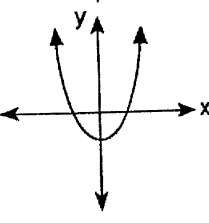
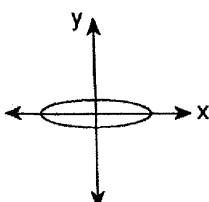
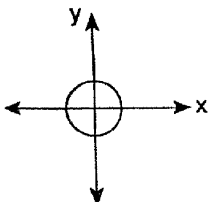


- 1) 0
- 2) 2
- 3) 3
- 4) 7

- 13 What are the domain and the range of the function shown in the graph below?



- 14 Which graph illustrates a quadratic relation whose domain is all real numbers?



## A2.A.51: Domain and Range 2: Determine the domain and range of a function from its graph

### Answer Section

1 ANS:

$$4 \leq x \leq 13$$

REF: 010602b

2 ANS:

$$0 \leq x \leq 12$$

REF: 060804b

3 ANS:

$$-1 \leq x \leq 6$$

REF: 061202a2

4 ANS:

$$60 - 110$$

REF: 060501b

5 ANS:

$$0 \leq y \leq 100$$

REF: 010712b

6 ANS:

$$30 \leq y \leq 80$$

REF: 080708b

7 ANS:

$$56 \leq y \leq 70$$

REF: 061013b

8 ANS:

$$5 \leq y \leq 70$$

REF: 010918b

9 ANS:

$$y \leq 0$$

REF: 061308a2

10 ANS:

$$0.97 \leq y \leq 2.38$$

REF: 061418a2

11 ANS:

$$D: -5 \leq x \leq 8. \quad R: -3 \leq y \leq 2$$

REF: 011132a2

12 ANS: 4

REF: 061518a2

13 ANS:  
 $\{x|x \geq -4\}; \{y|y \geq 2\}$

REF: 081003a2

14 ANS: 3 REF: 019518siii