

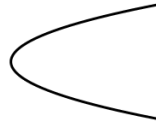
7.2

Which of the following is **not** a function?

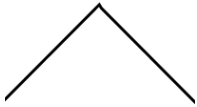
a)



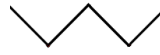
b)



c)



d)



7.2

Which table represents a relation that is **not** a function?

a)

x	0	1	2	3	4	4
y	5	8	7	6	3	4

b)

x	0	1	2	3	4	5
y	5	8	7	6	3	5

c)

x	0	1	2	3	4	6
y	5	8	7	6	3	6

d)

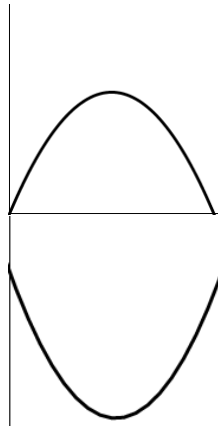
x	0	1	2	3	4	7
y	5	8	7	6	3	7

7.3

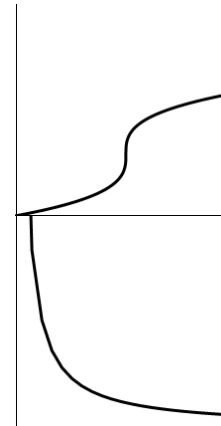
After introducing rabbits to Australia, the population increased by a steady percentage. After awhile, the growth rate slowed down.

Which graph represents the problem?

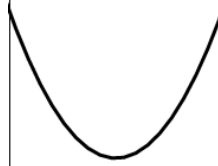
a)



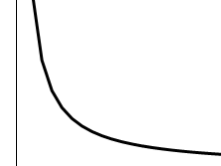
b)



c)



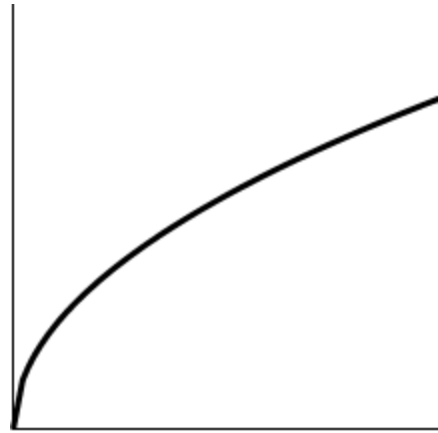
d)



7.3

Which description fits the graph?

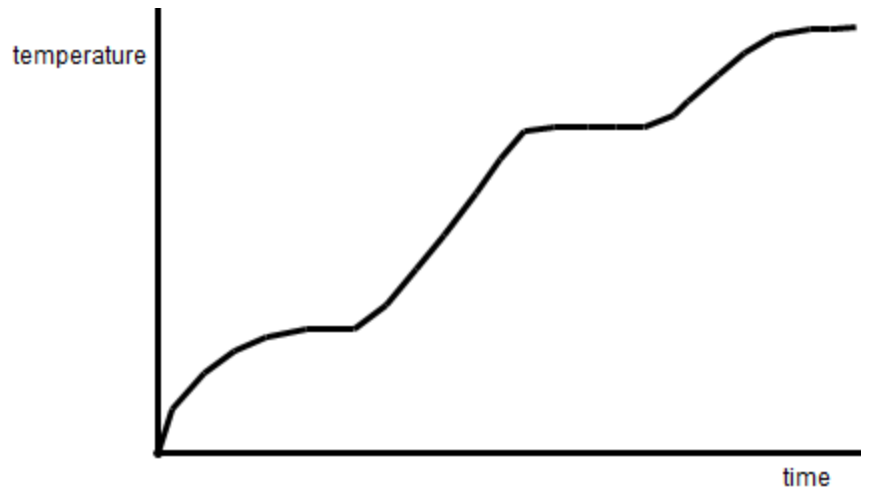
- a) Increasing faster and faster
- b) Increasing slower and slower
- c) Decreasing faster and faster
- d) Decreasing slower and slower



7.3

According to the graph below, which is true?

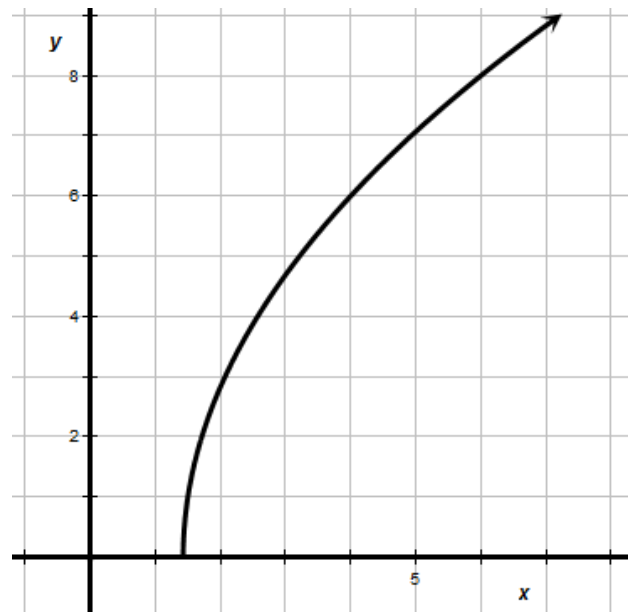
- a) Temperature is the dependent variable and time is the independent variable
- b) Temperature is the independent variable and time is the dependent variable
- c) Both temperature and time are independent variables.
- d) Both temperature and time are dependent variables.



7.4

Find  $f(6)$  using the graph at the right

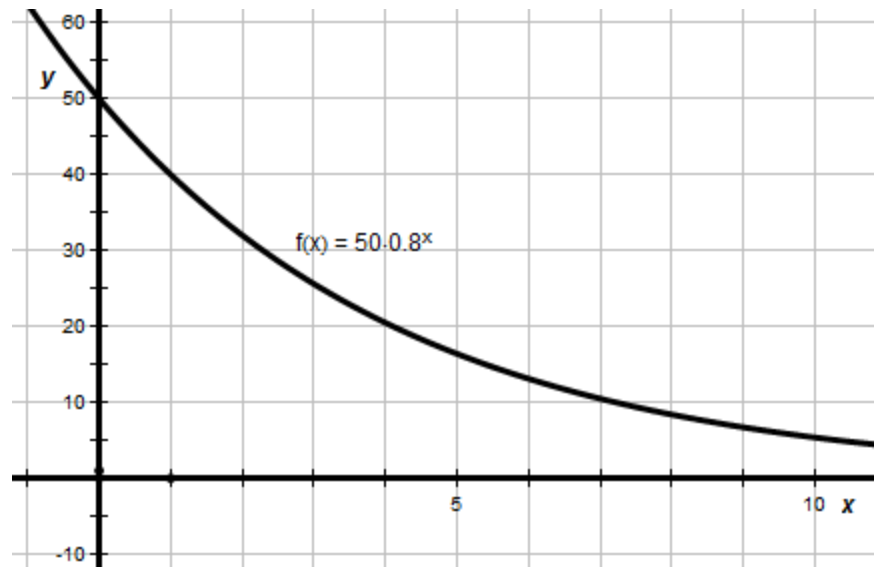
- a) 2
- b) 4
- c) 6
- d) 8



7.4

For what value or values of  $x$  does  $f(x) = 10$ ?

- a) 5
- b) 6
- c) 7
- d) 10



7.4

If  $f(x) = \frac{9}{5}x + 32$ , then  $f(15) =$

- a) -30.6
- b) 15
- c) 27
- d) 59

7.5

Which of the following values of  $x$  is a solution to  $|x - 3| = 2$ ?

- a) 1
- b) 2
- c) 3
- d) -5

7.6

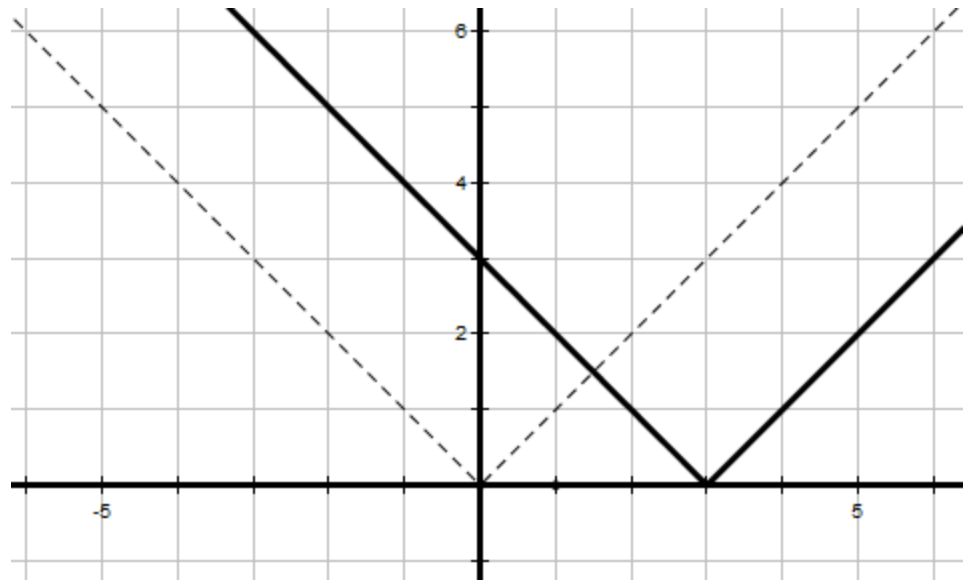
What is the length of the side of a square whose area is 42.25?

- a) 6.5
- b) 21.125
- c) 42.25
- d) 1785.0625

8.2

The dashed function is  $y = |x|$ . Which of the following functions represents the equation of the solid function?

- a)  $y = |x+3|$
- b)  $y = |x-3|$
- c)  $y = |x|+3$
- d)  $y = |x|-3$



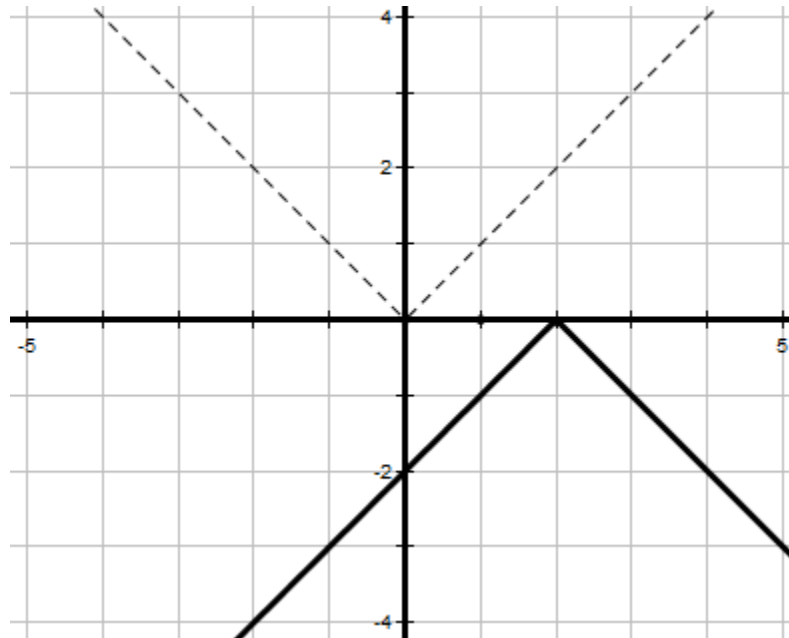
8.2

If the parent function is  $y = x^2$ , which is the equation of the function moved to the left 2 units and up 4 units?

- a)  $y = (x+2)^2 + 4$
- b)  $y + 4 = (x+2)^2$
- c)  $y = (x-2)^2 + 4$
- d)  $y + 4 = (x-2)^2$

## 8.3

Given the dashed parent function  $f(x)$ , which function represents the solid line?

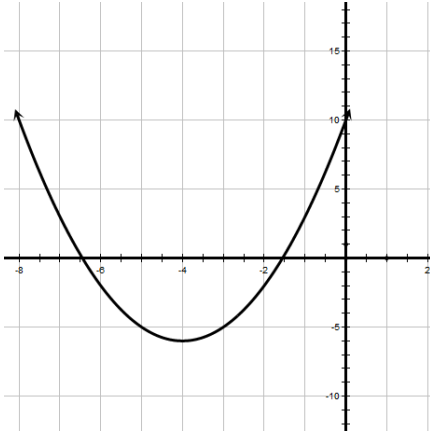


- a)  $y = -|x+2|$
- b)  $y = |-x|+2$
- c)  $y = -|x-2|$
- d)  $y = |-x|-2$

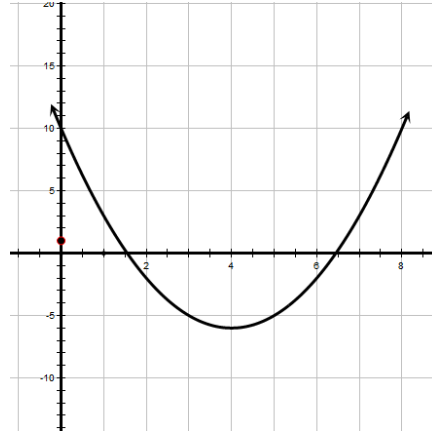
8.4

Which of the following is the graph of  $y = -(x + 4)^2 - 6$ ?

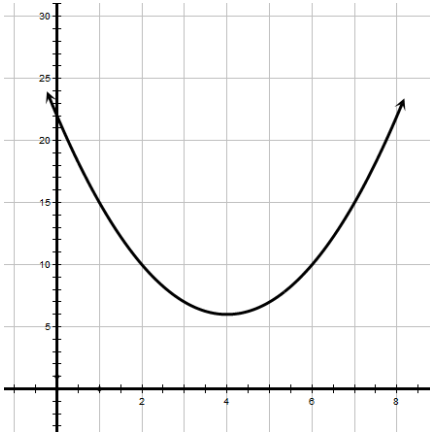
a)



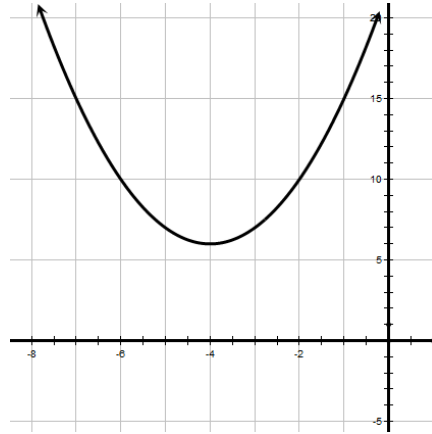
b)



c)



d)



8.4

The table at the left represents  $y = x^2$ . What equation represents the table at the right?

$y = x^2$	
$x$	$y$
0	0
1	1
2	4
3	9
4	16
5	25

$x$	$y$
0	1
1	3
2	9
3	19
4	33
5	51

- a)  $y = x^2 + 1$
- b)  $y = 2x^2$
- c)  $y = 2x^2 + 1$
- d)  $y = x^2 + 26$

9.1

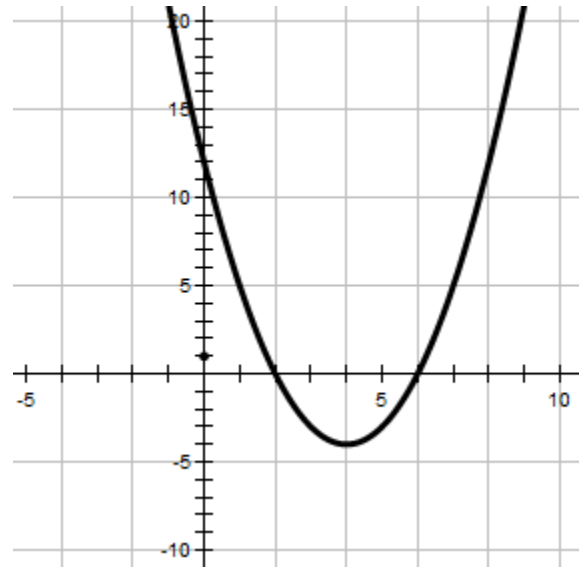
Solve for  $x$ :  $(x-4)^2 - 1 = 8$

- a)  $\pm\sqrt{13}$
- b)  $\sqrt{13}$  or  $\sqrt{11}$
- c)  $\pm 7$
- d) 1 or 7

9.2

What are the roots of the function shown at the right?

- a) -4
- b) 4
- c) 2 and 6
- d) 12



9.3

$(x-8)^2$  can be written in standard (or general) form as

- a)  $x^2 - 16$
- b)  $x^2 + 64$
- c)  $x^2 - 64$
- d)  $x^2 - 16x + 64$

9.4

Factor  $x^2 - 10x - 24$

- a)  $(x-4)(x-6)$
- b)  $(x-4)(x+6)$
- c)  $(x-2)(x-12)$
- d)  $(x+2)(x-12)$

9.7

How many real roots does the quadratic equation  $y = x^2 - 5x + 7$  have?

- a) 0
- b) 1
- c) 2
- d) 3

9.8

How many real roots does the cubic equation  $y = (x+1)(x+4)(x+9)$  have?

- a) 0
- b) 1
- c) 2
- d) 3