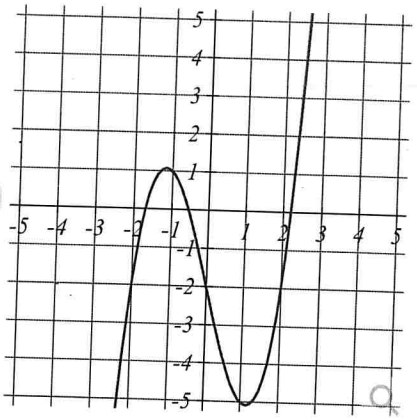
3.1: Graded Homework

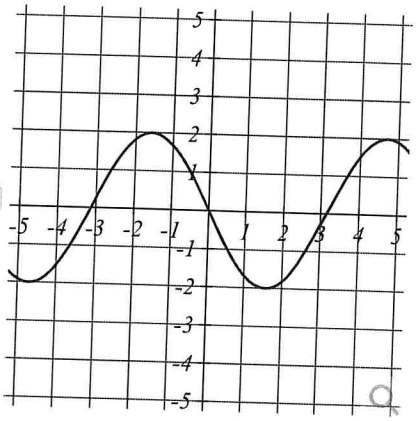
Nicole Cook

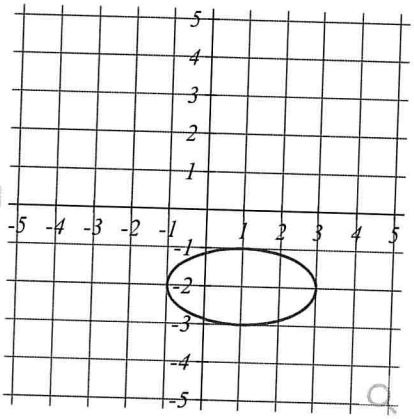
Question 1

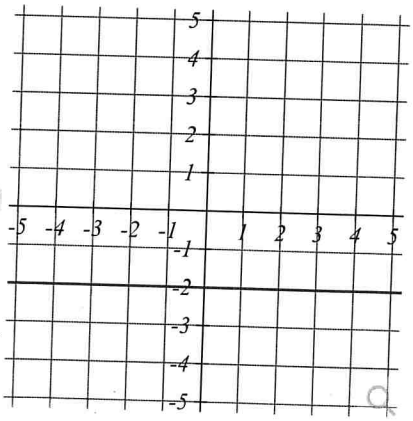
0/1 pt 3 99

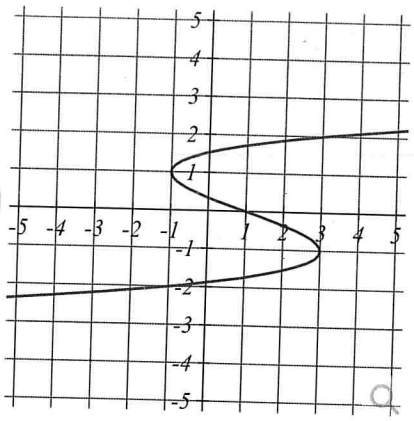
Select all of the following graphs which represent y as a function of x.

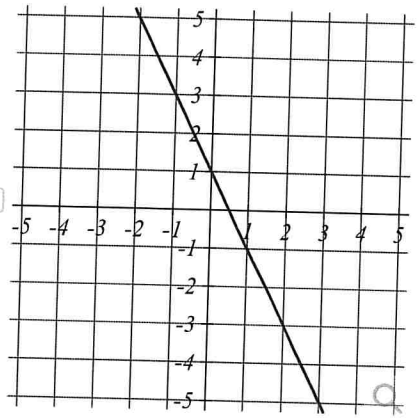










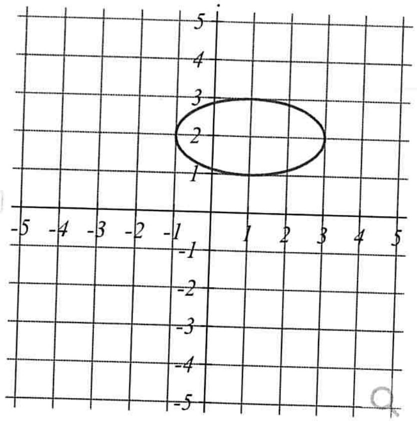


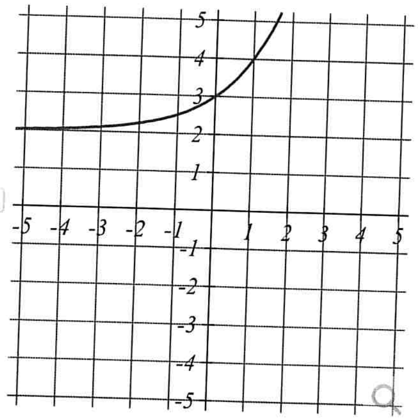
Question Help: Video 1 Video 2 Message instructor

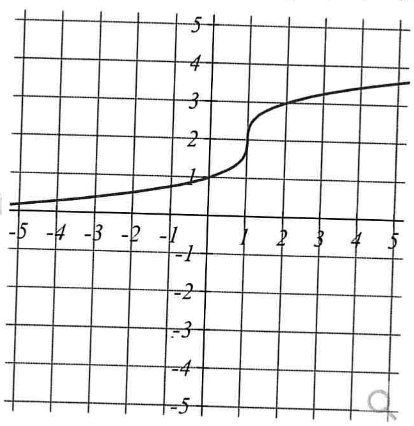
Question 2

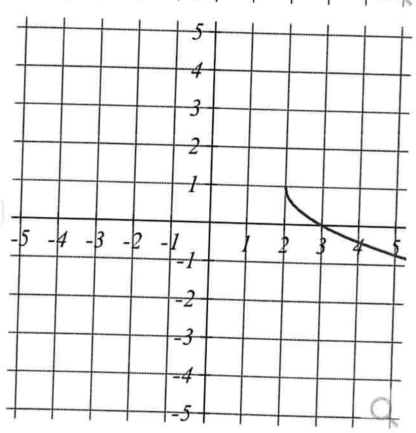
0/1 pt 3 99

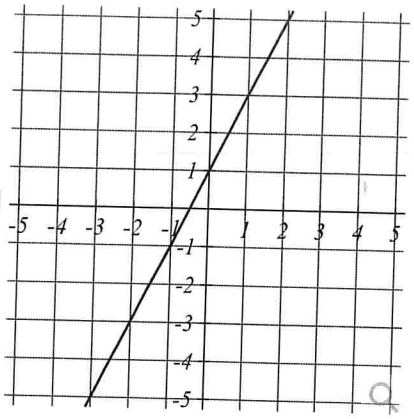
Select all of the following graphs which are **one-to-one functions.**

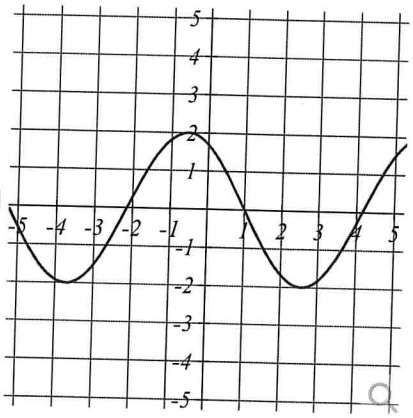
☐ 

☐ 

☐ 

☐ 



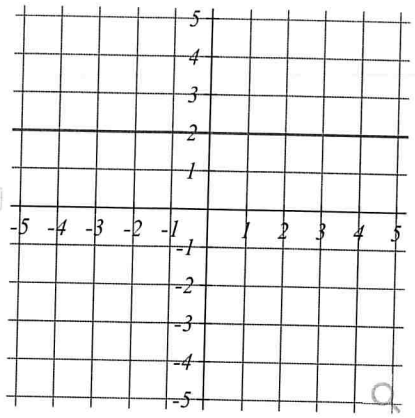


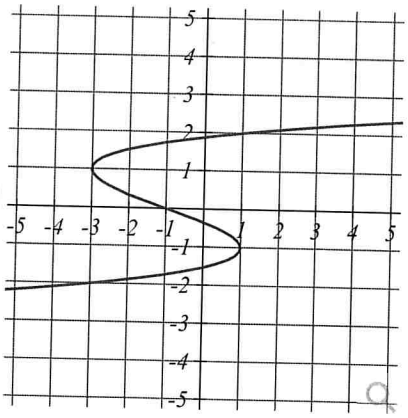
Question Help: Video Message instructor

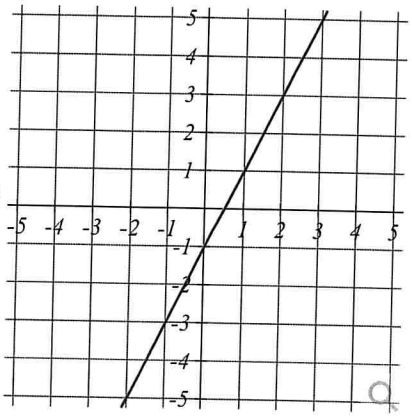
Question 3

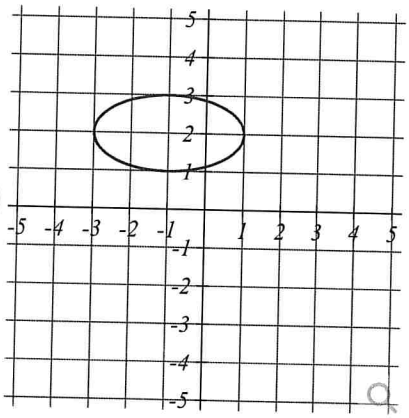
0/1 pt 3 99

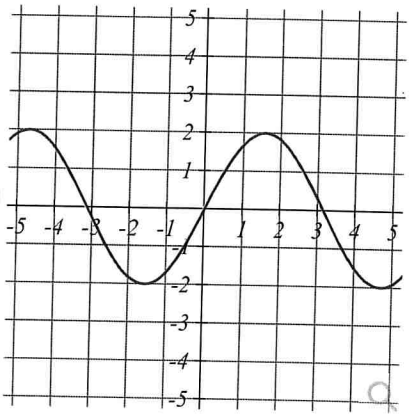
Select all of the following graphs which represent y as a function of x.

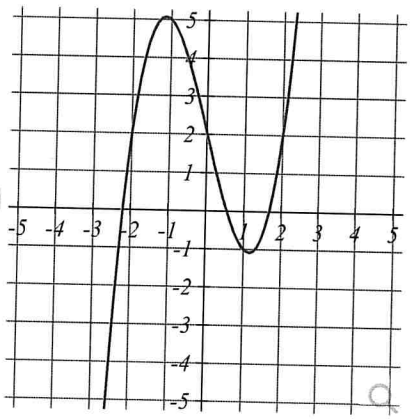












Question Help: Message instructor

Question 4

0/1 pt 3 99

Select all of the following tables which represent y as a function of x.

x	y
-4	-3
3	1
3	6
7	9
10	15

x	y
-4	0
1	3
6	4
8	9
15	11

x	y
0	-4
3	1
6	1
9	8
3	11

x	y
-2	-3
2	3
5	3
8	9
10	14

Question Help: Video Message instructor

Question 5

0/1 pt 3 99

Select all of the following tables which represent y as a function of x **and** are one-to-one.

x	4	10	10
y	1	8	13

x	4	10	15
y	1	8	8

x	4	10	15
y	1	8	13

Question Help: Video Message instructor

Question 6

0/1 pt 3 99

Select all of the following tables which represent y as a function of x.

x	y
-5	-4
2	1
4	1
8	7
10	16

x	y
-1	-5
2	3
2	4
7	9
15	13

x	y
-1	-4
2	3
4	5
9	7
2	15

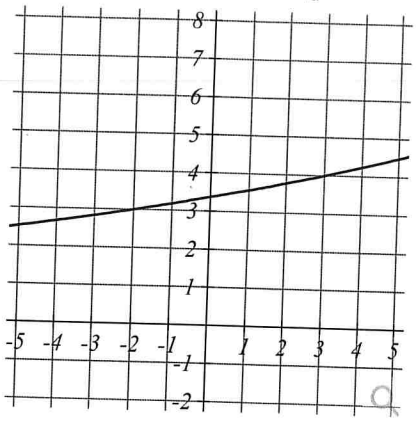
x	y
-3	-2
2	1
6	4
7	9
12	11

Question Help: Message instructor

Question 7

0/1 pt 3 99

The plot below represents the function $f(x)$:



Evaluate $f(3)$:

$f(3) =$ _____

Solve $f(x) = 3$:

$x =$ _____

Question Help: Video Message instructor

Question 8

0/1 pt 3 99

Based on the table below,

x	0	1	2	3	4	5	6	7	8	9
$f(x)$	21	3	54	94	85	58	2	60	17	43

Evaluate $f(2)$:

$f(2) =$ _____

Solve $f(x) = 3$:

$x =$ _____

Question Help: Video Message instructor

Question 9

0/1 pt 3 99

Given the function $f(x) = 8x^2 - 4x + 4$. Calculate the following values:

$f(-2) =$

$f(-1) =$

$f(0) =$

$f(1) =$

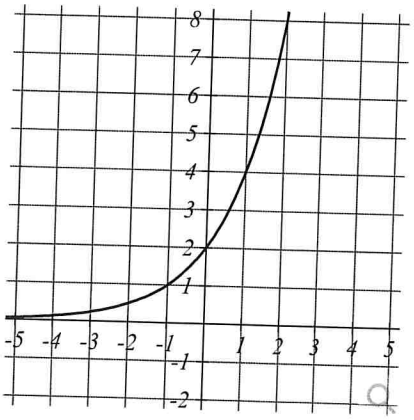
$f(2) =$

Question Help: Video Message instructor

Question 10

0/1 pt 3 99

The plot below represents the function $f(x)$



Evaluate $f(1)$

$f(1) =$ _____

Solve $f(x) = 1$

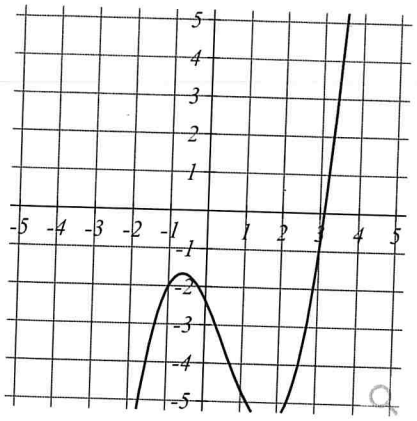
$x=$ _____

Question Help: Video Message instructor

Question 11

0/1 pt 3 99

The plot below represents the function $f(x)$



Evaluate $f(-1)$

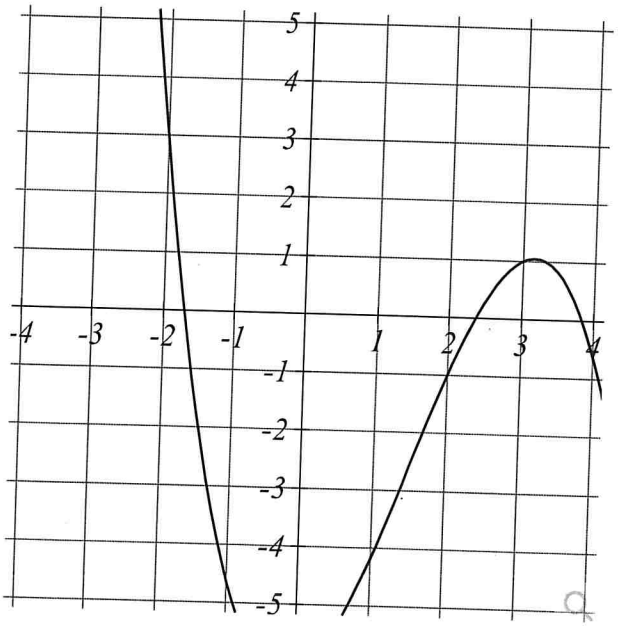
$f(-1) =$ _____

Question Help: Video Message instructor

Question 12

0/1 pt 3 99

Below is the graph of function $H(x)$. Estimate as close as possible the value of $H(3)$.



$H(3) =$ _____

Question Help: Video Message instructor

Question 13

0/1 pt 3 99

Match each function name with its equation.

- $y = |x|$
- $y = \frac{1}{x}$
- $y = \sqrt{x}$
- $y = \frac{1}{x^2}$
- $y = x^3$
- $y = x^2$
- $y = x$
- $y = \sqrt[3]{x}$

a. Reciprocal Squared
b. Cubic
c. Linear
d. Square Root
e. Cube root
f. Quadratic
g. Reciprocal
h. Absolute Value

Question Help: Message instructor

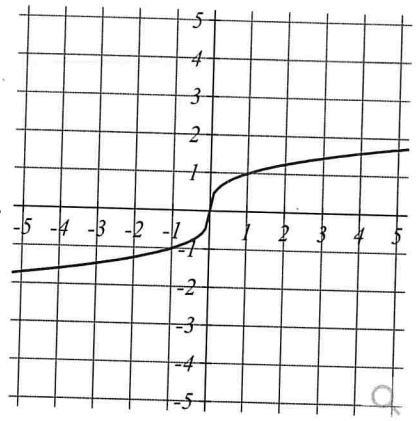
Question 14

0/1 pt 3 99

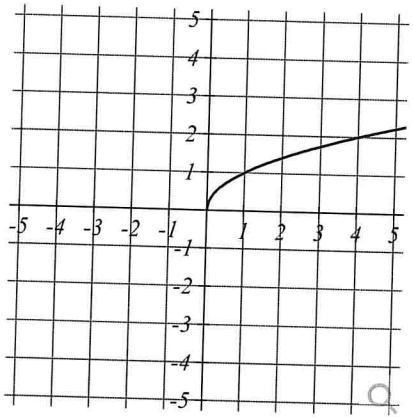
Match each graph with its equation.

- $y = x$
- $y = \sqrt{x}$
- $y = \dfrac{1}{x^2}$
- $y = \dfrac{1}{x}$
- $y = |x|$
- $y = x^2$
- $y = \sqrt[3]{x}$
- $y = x^3$

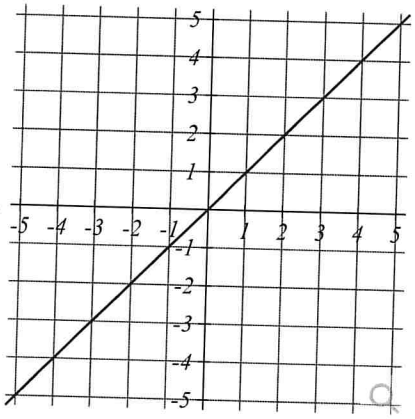
a.



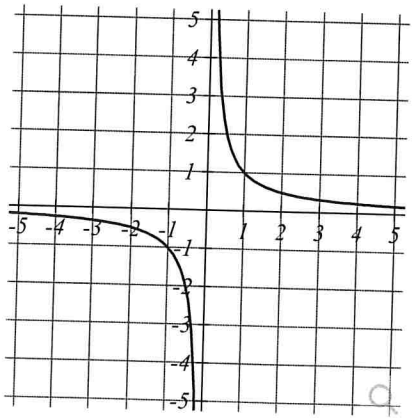
b.



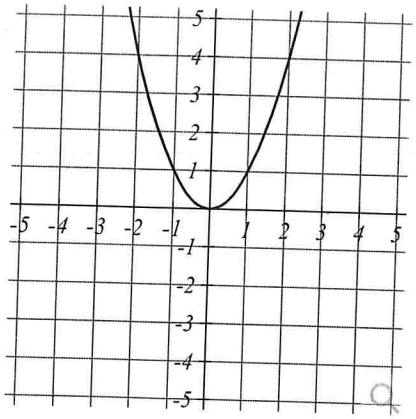
c.



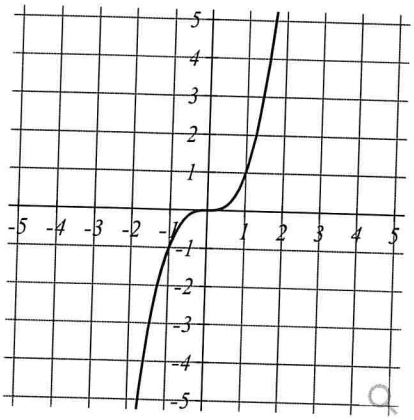
d.



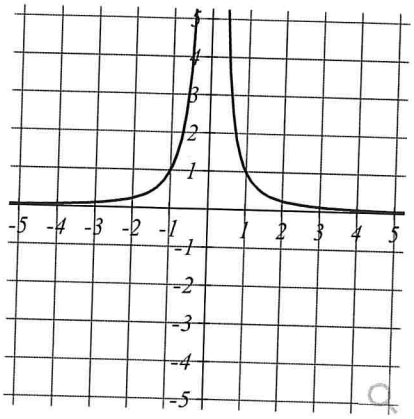
e.



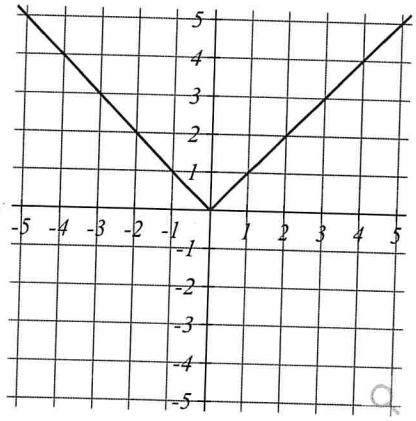
f.



g.



h.



Question Help: Message instructor

Question 15

0/1 pt 3 99

Given the function $f(x) = 4x^2 - 3x + 4$. Calculate the following values:

$f(-2) =$ ☐

$f(-1) =$ ☐

$f(0) =$ ☐

$f(1) =$ ☐

$f(2) =$ ☐

Question Help: Video 1 Video 2 Message instructor

Question 16

0/1 pt 3 99

Given the function $f(x) = 3x^2 - 8x + 3$. Calculate the following values:

$f(-2) =$ ☐

$f(-1) =$ ☐

$f(0) =$ ☐

$f(1) =$ ☐

$f(2) =$ ☐

Question Help: Video Message instructor

Question 17

0/1 pt 3 99

Given the function $f(x) = 7x^2 - 3x + 7$. Calculate the following values:

$f(-2) =$ ☐

$f(-1) =$ ☐

$f(0) =$ ☐

$f(1) =$ ☐

$f(2) =$ ☐

Question Help: Message instructor

Question 18

0/1 pt 3 99

For the function $f(x) = 4x^2 + 4x$, evaluate and simplify.

$$\frac{f(x+h) - f(x)}{h} =$$

Question Help: Video Message instructor

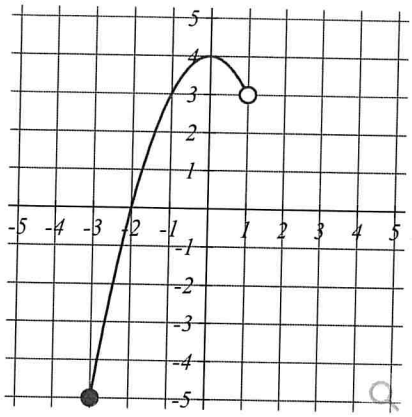
3.2: Graded Homework

Nicole Cook

Question 1

0/1 pt 3 97

Find the domain and range of the function graphed below.



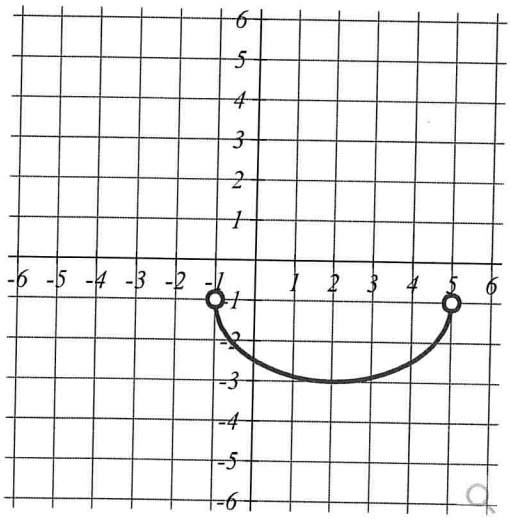
Domain:

Range:

Question Help: Video Message instructor

Question 2

0/1 pt 3 99



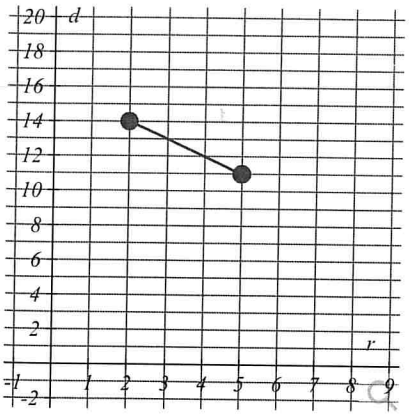
Write the range of the function using interval notation.

Question Help: Video Message instructor

Question 3

1/1 pt 2 99

What is the domain of the function in the graph?



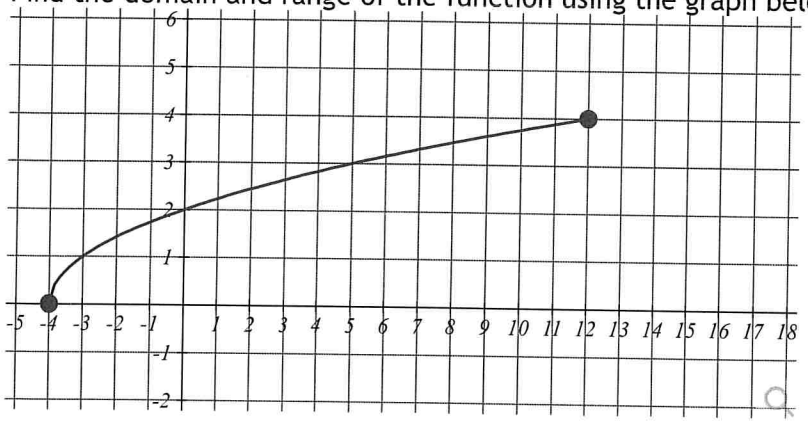
- $11 \leq r \leq 14$
- $2 \leq r \leq 5$
- $11 \leq d \leq 14$
- $2 \leq d \leq 5$

Question Help: Video Message instructor

Question 4

0/1 pt 3 99

Find the domain and range of the function using the graph below.



Domain: _____ ≤ x ≤ _____

Range: _____ ≤ y ≤ _____

Question Help: Message instructor

Question 5

1/1 pt 2 99

Find the domain of the function $f(x) = \dfrac{2}{x-4}$.

- $\{x \mid x > 4\}$
- $\{x \mid x < 4\}$
- $\{x \mid x \neq 4\}$

Question Help: Video Message instructor

Question 6

1/1 pt 2 99

Find the domain of $f(x) = \sqrt{-x-5}$
Use two lower case o's for infinity. "oo" is how you type in infinity.

$(-\infty, -5]$

Question Help: Video Message instructor

Question 7

1/1 pt 2 99

What is the domain of the following function: $f(x) = \dfrac{\sqrt{x+7}}{x-1}$.

- $x \neq 1$
- $[-7, \infty)$
- $[-7, 1) \cup (1, \infty)$
- $(1, \infty)$
- All real numbers

Question Help: Video Message instructor

Question 8

0.5/1 pt 0-2 99

Find the domain and range of the function given below:
$f(x) = -6x - 1$

The domain of f(x) is:

- x ≥ 0
- x ≤ 0
- x ≥ -6
- All real numbers

The range of f(x) is:

- y ≥ -1
- y ≤ 0
- All real numbers
- y ≥ 0

Question Help: Message instructor

Question 9

0/1 pt 3 99

Find the domain of the function $f(x) = \dfrac{1}{8x+3}$. What is the only value of x not in the domain?

Only Value=

Question Help: Message instructor

Question 10

0/1 pt 3 99

Given the function:

$$f(x) = \begin{cases} 9x - 3 & x < 0 \\ 9x - 6 & x \geq 0 \end{cases}$$

Calculate the following values:

$f(-1) =$

$f(0) =$

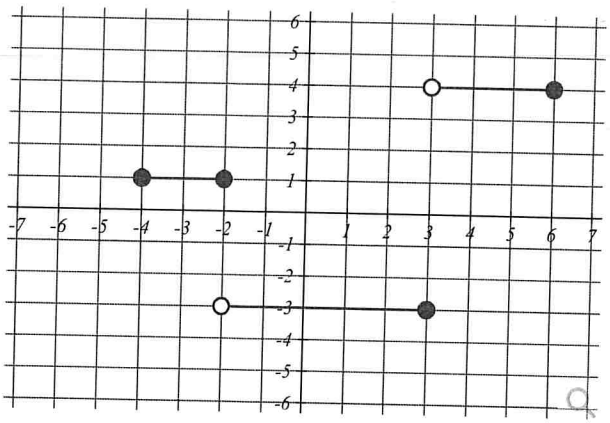
$f(2) =$

Question Help: Video Message instructor

Question 11

0/1 pt 3 99

Complete the description of the piecewise function graphed below. Use interval notation to indicate the intervals.



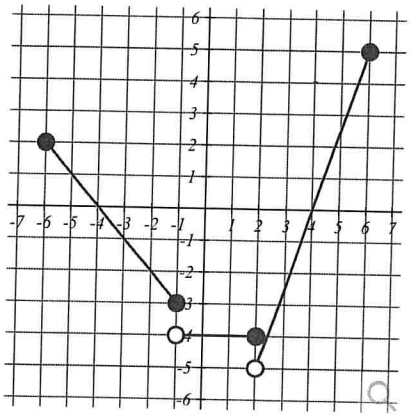
$$f(x) = \begin{cases} 1 & \text{if } x \in \square \\ -3 & \text{if } x \in \square \\ 4 & \text{if } x \in \square \end{cases}$$

Question Help: Video Message instructor

Question 12

0/1 pt 3 99

Complete the description of the piecewise function graphed below.

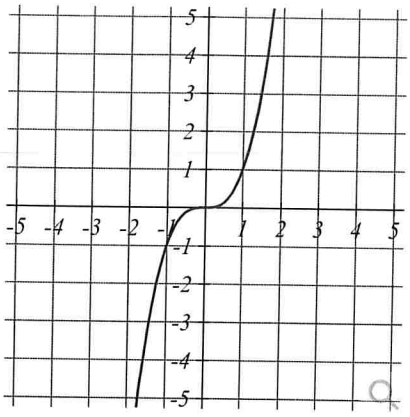


$$f(x) = \begin{cases} \square & \text{if } -6 \le x \le -1 \\ \square & \text{if } -1 < x \le 2 \\ \square & \text{if } 2 < x \le 6 \end{cases}$$

Question Help: Video Message instructor

Question 13

0/1 pt 3 99



Select the name of the toolkit function in the graph.

Select an answer

Select the equation of the toolkit function in the graph.

- $f(x) = x$
- $f(x) = |x|$
- $f(x) = \frac{1}{x}$
- $f(x) = x^2$
- $f(x) = \log(x)$
- $f(x) = x^3$
- $f(x) = 10^x$

Give the domain of the function in the graph.

Give the range of the function in the graph.

Question Help: Message instructor

3.3: Graded Homework

Nicole Cook

Question 1

0/1 pt 3 99

The table below gives the annual sales (in millions) of a product.

year	2014	2015	2016	2017	2018	2019	2020	2021	2022
sales	126	180	222	252	270	276	270	252	222

What was the average rate of change (slope) of annual sales? Enter only the final answer for each part.

a) between 2014 and 2015?

[ ] millions of dollars/year

b) between 2014 and 2021?

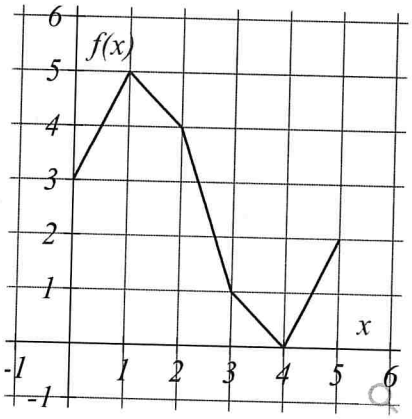
[ ] millions of dollars/year

Question Help: Video Message instructor

Question 2

0/1 pt 3 99

Use the graph of $f(x)$ to evaluate the following:



The average rate of change of f from $x = 1$ to $x = 3$ is [ ]

Give your answer as an integer or reduced fraction.

Question Help: Video Message instructor

Question 3

1/1 pt 2 99

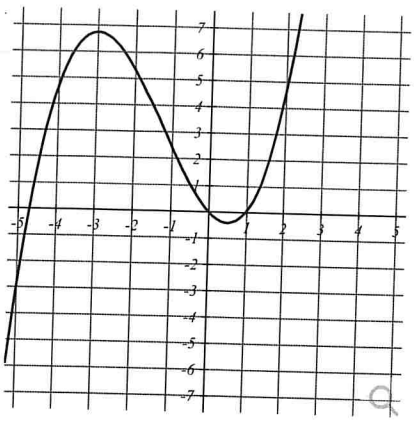
Find the average rate of change of $g(x) = 5x^3 - 5$ from $x = -1$ to $x = 1$.

5

Question Help: Video Message instructor

Question 4

0/1 pt 3 99



The function graphed above is:

Increasing on the interval(s) [ ]

Decreasing on the interval(s) [ ]

Question Help: Video Message instructor

Question 5

0/1 pt 3 99

Consider the function graphed at right.

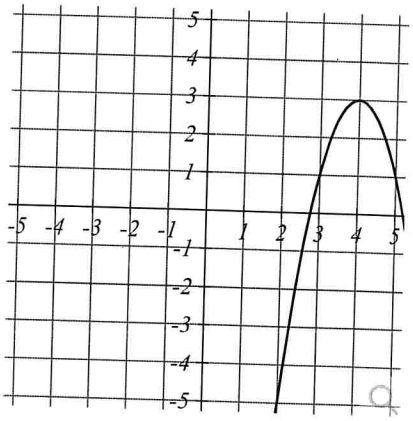
The function has a maximum of 3 at $x =$ [ ]

The function is increasing on the interval(s):

[ ]

The function is decreasing on the interval(s):

[ ]



Question Help: Video Message instructor

Question 6

0/1 pt 3 99

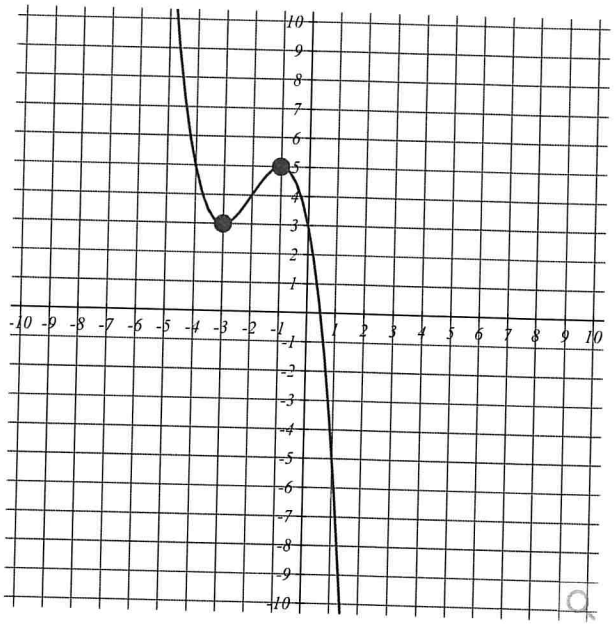
Consider the function in the graph to the right.

The function has a maximum of

_____ at x = _____

The function has a minimum of

_____ at x = _____



The function is increasing on the interval(s):

The function is decreasing on the interval(s):

The domain of the function is:

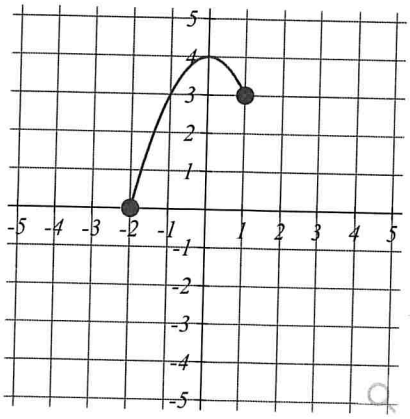
The range of the function is:

Question Help: Video Message instructor

Question 7

0/1 pt 3 99

Find the absolute maximum and minimum for the given graph. Give your answer as an ordered pair.



Absolute maximum:

Absolute minimum:

Question Help: Video Message instructor

Question 8

0/1 pt 3 99

Consider the function in the graph to the right.

The function has a relative maximum of

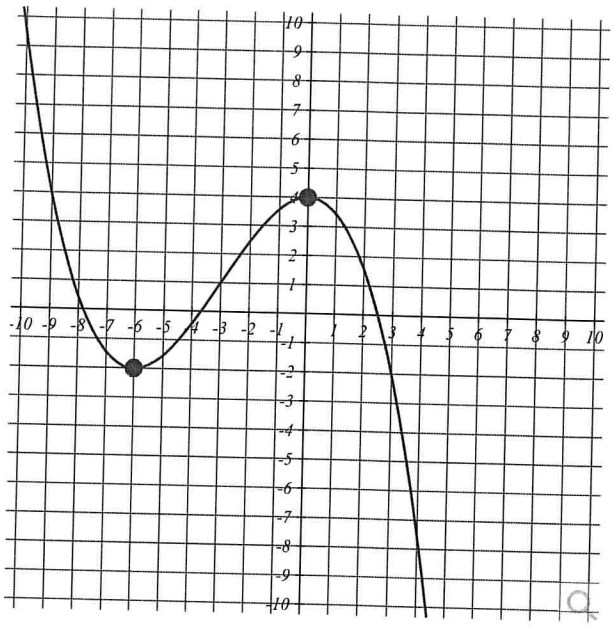
_____ at x =

_____

The function has a relative minimum of

_____ at x =

_____



The function is increasing on the interval(s):

The function is decreasing on the interval(s):

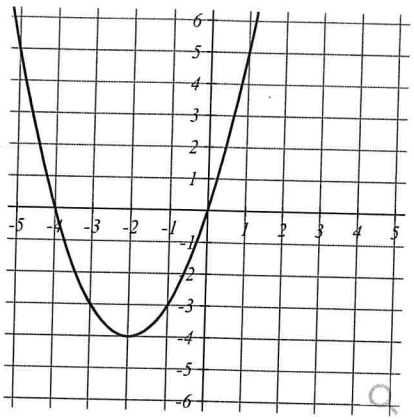
The domain of the function is:

The range of the function is:

Question Help: Video Message instructor

Question 9

0/1 pt 3 99



What is the **domain** of this function? (assume there are arrows at the ends of the graph)

The answer has the form Select an answer

Where A = _____ and B = _____

What is the **range** of this function?

The answer has the form Select an answer

Where A = _____ and B = _____

On what interval is the function **increasing**?

The answer has the form Select an answer

Where A = _____ and B = _____

On what interval is **f(x) <= 0**?

The answer has the form Select an answer

Where A = _____ and B = _____

Question Help: ✉ Message instructor

3.4: Graded Homework

Nicole Cook

Question 1

0/1 pt 3 99

Given the following functions, find each of the values:

$f(x) = x^2 - 8x + 7$

$g(x) = x - 7$

$(f+g)(5) =$ _____

$(f-g)(-2) =$ _____

$(f \cdot g)(4) =$ _____

$\left(\frac{f}{g}\right)(3) =$ _____

Question Help: Video Message instructor

Question 2

0/1 pt 3 99

Given the following functions, evaluate each of the following:

$f(x) = x^2 + x - 20$

$g(x) = x - 4$

$(f+g)(5) =$ _____

$(f-g)(5) =$ _____

$(f \cdot g)(5) =$ _____

$\left(\frac{f}{g}\right)(5) =$ _____

Question Help: Video Message instructor

Question 3

0/1 pt 3 99

Let $f(x) = 4x^2 + 5x + 2$ and $g(x) = 4x + 4$.
After simplifying,
$(f-g)(x) =$ [ ]

Question Help: Video Message instructor

Question 4

0/1 pt 3 99

Let $f(x) = 4x + 3$ and $g(x) = 4x^2 + 5x$. After simplifying,

$(fg)(x) =$ [ ]

Question Help: Video Message instructor

Question 5

0/1 pt 3 99

Let $f(x) = 4x + 5$ and $g(x) = 3x^2 + 2x$
Compute and simplify the following.

$(f + g)(x) =$ [ ]

Question Help: Video Message instructor

Question 6

0/1 pt 3 99

Given that $f(x) = x^2 - 1x$ and $g(x) = x - 5$, calculate.

$f(g(5))$ = _____
$g(f(5))$ = _____

Question Help: Video Message instructor

Question 7

0/1 pt 3 99

Given that $f(x) = 15x + 7$ and $g(x) = \sqrt{x - 4}$, calculate.

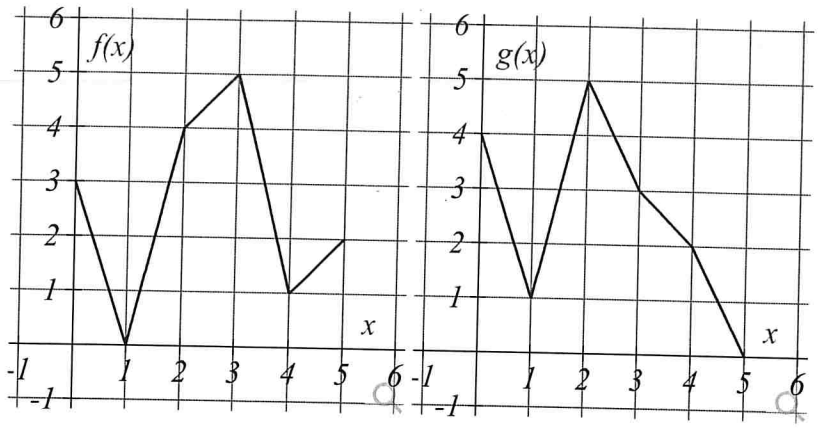
$f(g(19))$ = [ ]
$g(f(19))$ = [ ]

Question Help: Video Message instructor

Question 8

0/1 pt 3 99

Use the graphs to evaluate the expressions below.



$f(g(4)) =$ _____

$g(f(2)) =$ _____

$f(f(3)) =$ _____

$g(g(0)) =$ _____

Question Help: Video Message instructor

Question 9

0/1 pt 3 99

Use the table of values to evaluate the expressions below.

x	$f(x)$	$g(x)$
0	8	2
1	1	8
2	2	7
3	3	9
4	6	0
5	7	4
6	0	1
7	9	3
8	5	5
9	4	6

$f(g(0)) =$ _____

$g(f(8)) =$ _____

$f(f(6)) =$ _____

$g(g(1)) =$ _____

Question Help: Video Message instructor

Question 10

0/1 pt 3 99

Given that $f(x) = x^2 + 4x$ and $g(x) = x + 7$, calculate

(a) $(f \circ g)(x)$= ,

(b) $(g \circ f)(x)$= ,

(c) $(f \circ f)(x)$= ,

(d) $(g \circ g)(x)$= ,

Question Help: Video 1 Video 2 Message instructor

Question 11

0/1 pt 3 99

Let $f(x) = 5x + 4$ and $g(x) = 3x^2 + 2x$.

Simplify the following completely.

$(f \circ g)(x) =$

Question Help: Video Message instructor

Question 12

0/1 pt 3 99

Given that $f(x) = x^2 + 4x$ and $g(x) = x + 4$, calculate

(a) $(f \circ g)(x)$=

(b) $(g \circ f)(x)$=

(c) $(f \circ f)(x)$=

(d) $(g \circ g)(x)$=

Question Help: Message instructor

Question 13

0/1 pt 3 99

Given the following functions, use function composition to determine if $f(x)$ and $g(x)$ are inverse fucntions.

$$f(x) = -3x - 7 \quad \text{and} \quad g(x) = \frac{x+7}{-3}$$

(a) $(f \circ g)(x) =$ ☐

(b) $(g \circ f)(x) =$ ☐

(c) Thus $g(x)$ Select an answer the inverse function of $f(x)$

Question Help: Video Message instructor

Question 14

0/1 pt 3 99

Given the following functions, use function composition to determine if $f(x)$ and $g(x)$ are inverse fucntions.

$$f(x) = x + 15 \quad \text{and} \quad g(x) = x - 2$$

(a) $(f \circ g)(x) =$ ☐

(b) $(g \circ f)(x) =$ ☐

(c) Thus $g(x)$ Select an answer the inverse function of $f(x)$

Question Help: Video Message instructor

Question 15

0/1 pt 3 99

If $f(x) = x^4 + 2, g(x) = x - 2$ and $h(x) = \sqrt{x}$, then

$f(g(h(x)))$ = ☐ .

Question Help: Video Message instructor

Question 16

0/1 pt 3 99

The number of bacteria in a refrigerated food product is given by $N(T) = 24T^2 - 123T + 97$, $5 < T < 35$ where T is the temperature of the food.
When the food is removed from the refrigerator, the temperature is given by $T(t) = 8t + 1.4$, where t is the time in hours.

Find the composite function $N(T(t))$:

$N(T(t)) =$ [ ]

Find the number of bacteria after 3 hours. Give your answer accurate to the nearest whole value.

[ ] bacteria

Question Help: ✉ Message instructor

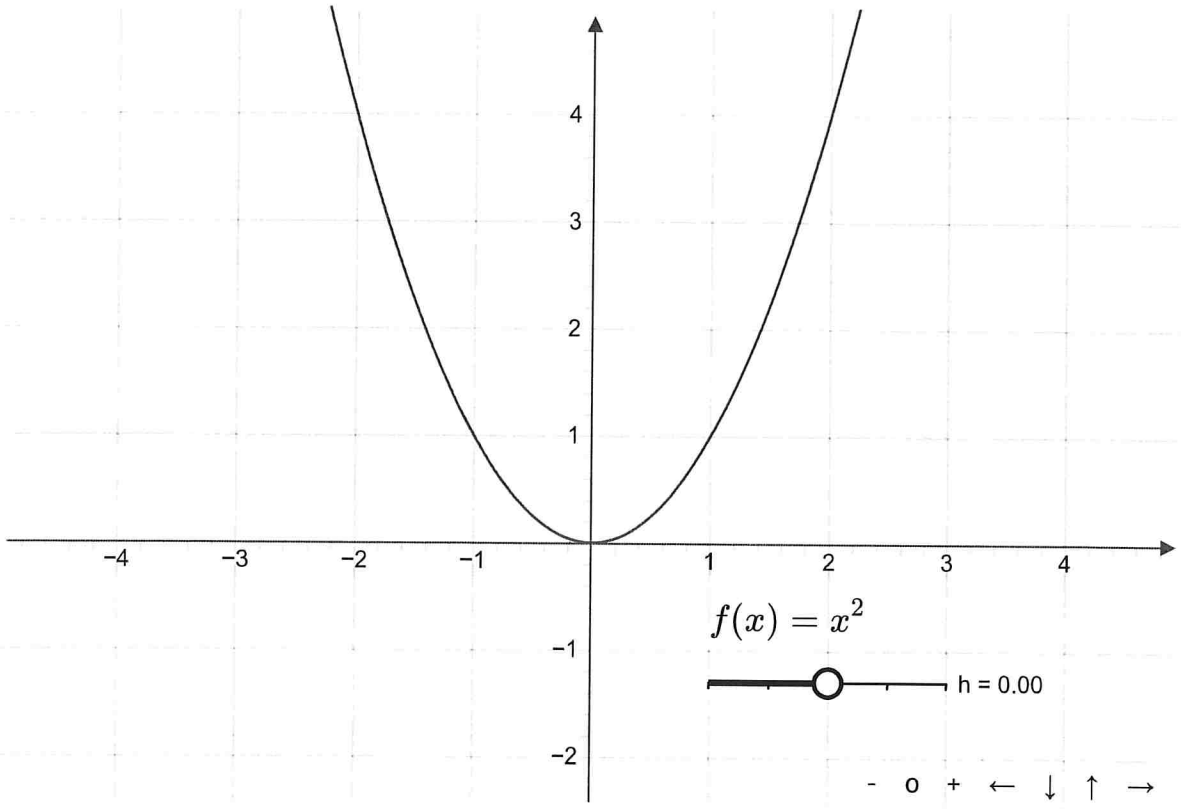
3.5: Graded Homework

Nicole Cook

Question 1

0/1 pt 3 99

Move the slider h so that the graph of $y = x^2$ gets shifted to the right 2 units. Then type the new function, $f(x)$ in the answer box



Don't forget to shift the graph to the right.

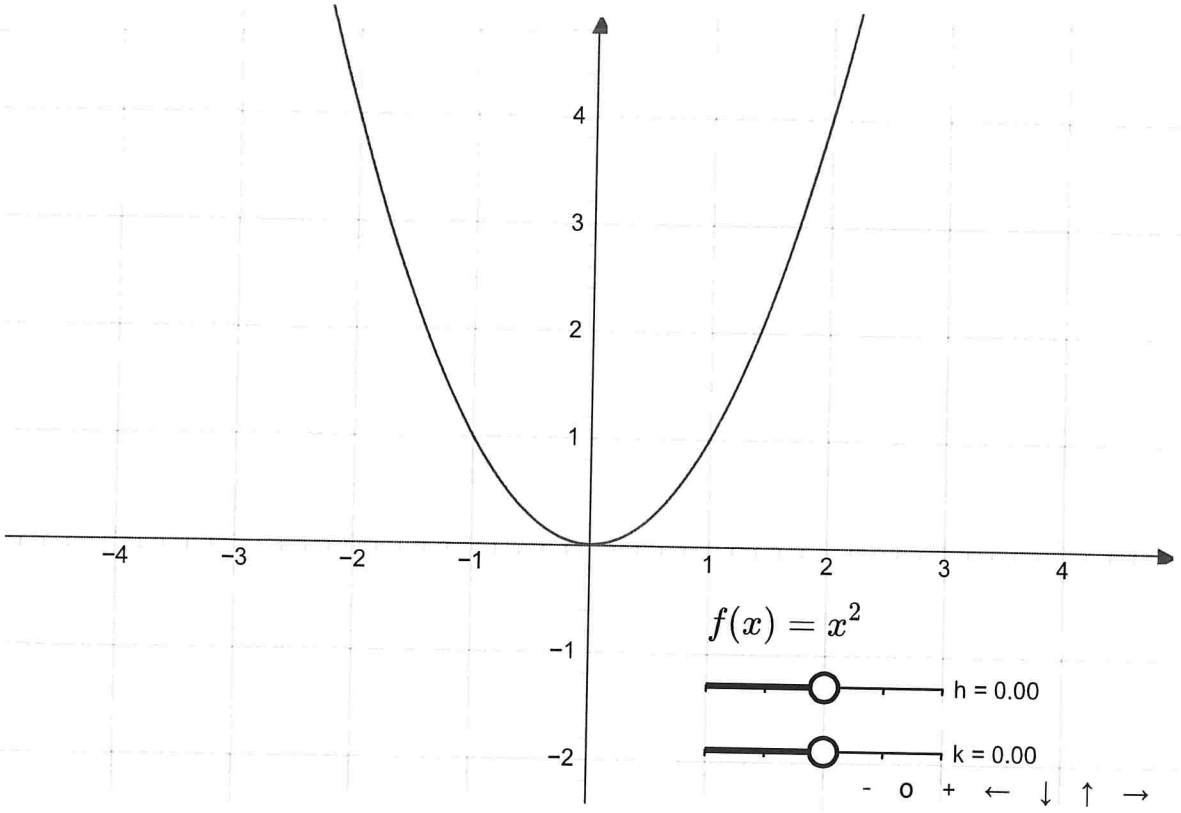
Using function notation, i.e. `f(x)=` , enter the function that results from the transformation.

Question Help: Video Message instructor

Question 2

0/1 pt 3 99

Move the sliders h and k so that the graph of $y = x^2$ gets shifted up 1 units and to the right 2 units. Then type the new function, $f(x)$ in the answer box



Don't forget to shift the graph.

Using function notation, i.e. `f(x) =` , enter the function that results from the transformation.

Question Help: Message instructor

Question 3

0/1 pt 3 99

The graph of the function
$y = f(x) - 42$
can be obtained from the graph of
$y = f(x)$
by one of the following actions:

- shifting the graph of $f(x)$ to the right 42 units
- shifting the graph of $f(x)$ upwards 42 units
- shifting the graph of $f(x)$ to the left 42 units
- shifting the graph of $f(x)$ downwards 42 units

Question Help: Message instructor

Question 4

0/1 pt 3 99

The graph of the function
$28f(x)$
can be obtained from the graph of
$y = f(x)$
by one of the following actions:

- horizontally stretching the graph of $f(x)$ by a factor 28
- horizontally compressing the graph of $f(x)$ by a factor 28
- vertically stretching the graph of $f(x)$ by a factor 28
- vertically compressing the graph of $f(x)$ by a factor 28

Question Help: Video Message instructor

Question 5

0/1 pt 3 99

The graph of the function $y = f(x - 59)$ can be obtained from the graph of $y = f(x)$ by one of the following actions:

- shifting the graph of $f(x)$ to the right 59 units
- shifting the graph of $f(x)$ to the left 59 units
- shifting the graph of $f(x)$ downwards 59 units
- shifting the graph of $f(x)$ upwards 59 units

Question Help: Message instructor

Question 6

0/1 pt 3 99

If the formula $y = x^3$ is changed by adding one (shown in bold below), what effect would that change have on the function's values?

$f(x) = x^3$**+1**

Select an answer

What effect would it have on the graph?

Select an answer

Question Help: Video Message instructor

Question 7

0/1 pt 3 99

Suppose the graph of $y = x^2$ is translated right 8 units, and down 9 units.

The new graph will have equation $y =$ [ ]

Question Help: Video Written Example Message instructor

Question 8

0/1 pt 3 99

Given $f(x) = x^2$, after performing the following transformations: shift upward 2 units and shift 43 units to the right, the new function $g(x) =$ [ ]

Question Help: Video Message instructor

Question 9

0/1 pt 3 99

Given $f(x) = x^2$, after performing the following transformations: shift upward 26 units and shift 13 units to the right, the new function $g(x) =$ [ ]

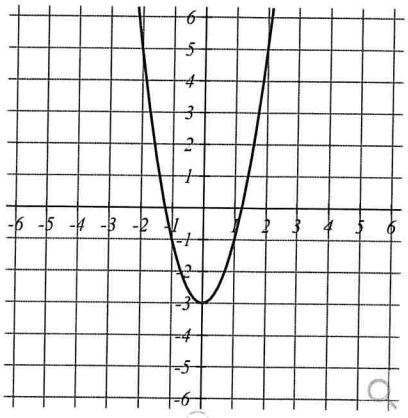
Question Help: Message instructor

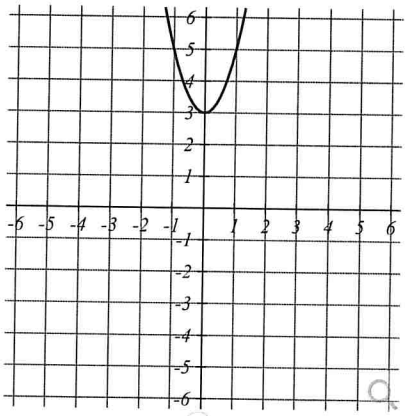
Question 10

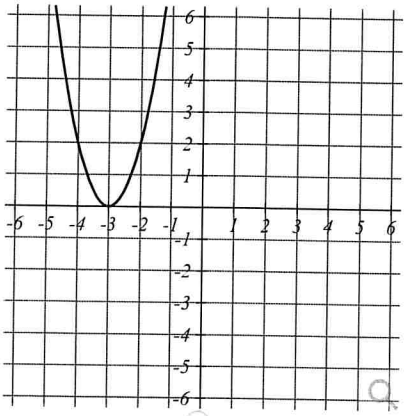
0/1 pt 3 99

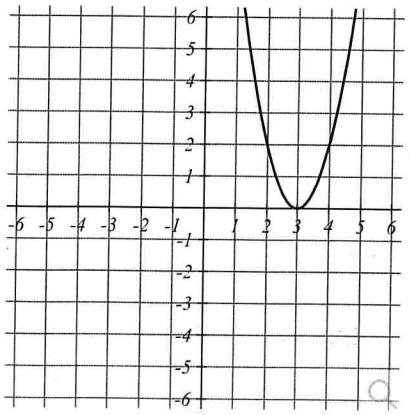
Match the function with its graph.

$y = 2x^2 - 3$









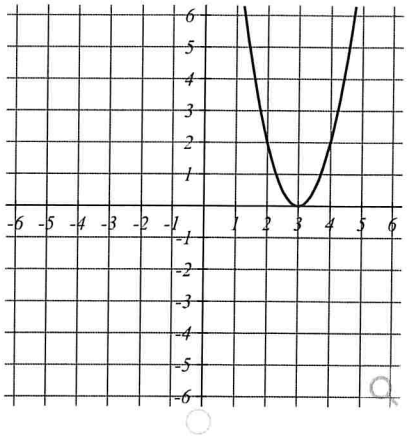
Question Help: Message instructor

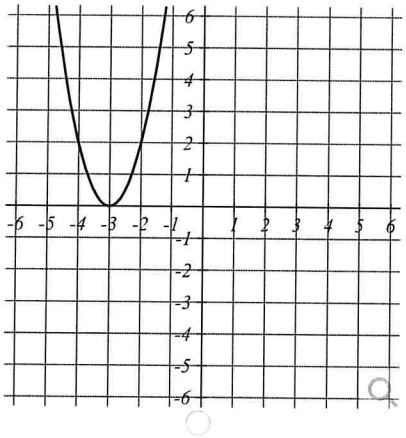
Question 11

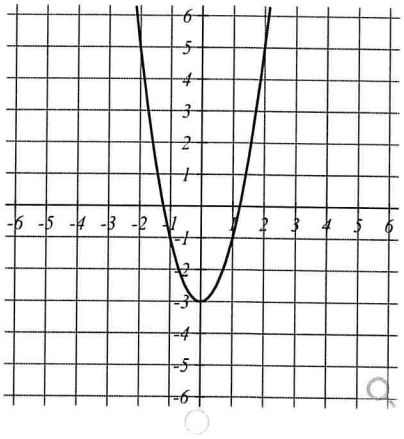
0/1 pt 3 99

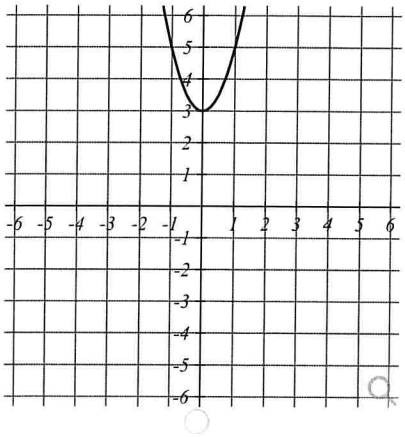
Match the function with its graph.

$y = 2(x+3)^2$







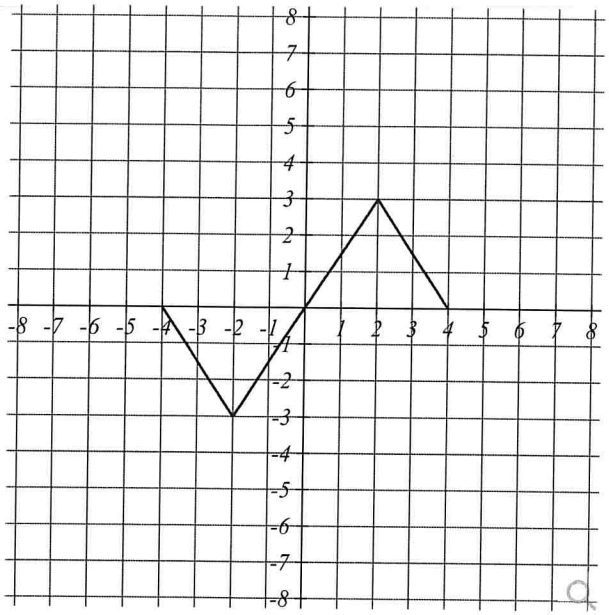


Question Help: Message instructor

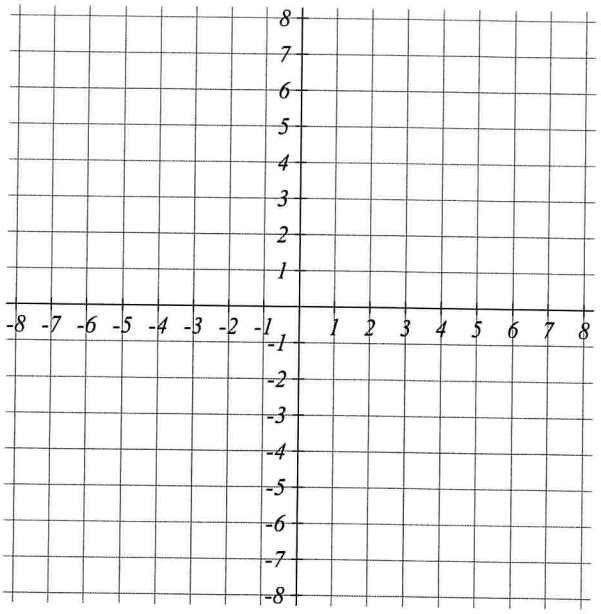
Question 12

0/1 pt 3 99

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



Draw the graph of $g(x) = f(x+1)$ below.
After finishing the graph, click outside the grid to stop drawing.



Question Help: Message instructor

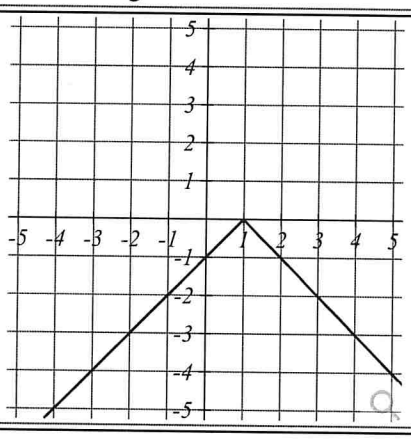
Question 13

0/1 pt 3 99

Function Transformations

Which of the following functions match the graph to the right?

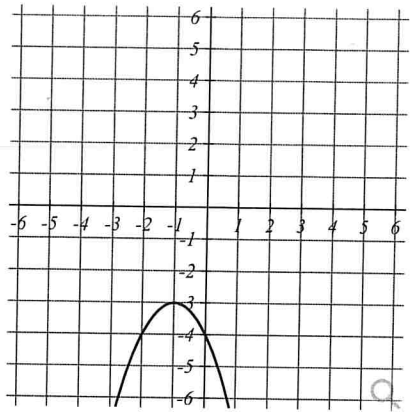
- $f(x) = -|x-1|$
- $f(x) = -|x|+1$
- $f(x) = |-x-1|$
- $f(x) = |-x|-1$



Question Help: Message instructor

Question 14

0/1 pt 3 99



The graph above is a transformation of the function x^2.

Give the function in the graph above.

$g(x) =$ [ ]

Question Help: Video Message instructor

Question 15

0/1 pt 3 99

(a) The graph of $f(x) = (x + 30)^2$ can be obtained from shifting the graph of $f(x) = x^2$ to the _____ 30 units.

(b) The graph of $f(x) = x^2 + 30$ can be obtained from shifting the graph of $f(x) = x^2$ _____ 30 units.

(c) The graph of $f(x) = 30\sqrt{x}$ can be obtained from _____ the graph of $f(x) = \sqrt{x}$ vertically by a factor 30.

(d) The graph of $f(x) = \sqrt{30x}$ can be obtained from _____ the graph of $f(x) = \sqrt{x}$ horizontally by a factor $\frac{1}{30}$.

For each question, enter one of: left, right, upward, downward, stretching, shrinking

Question Help: Message instructor

Question 16

0/1 pt 3 99

Determine the parent function from which the graph of the function shown below can be obtained. Next, identify each transformation that can be applied to the parent function in order to obtain the graph of the function shown below.

$g(x) = -9\sqrt[3]{x-7} + 8$

a) Choose the correct parent function.

- $y = x^2$
- $y = x^3$
- $y = |x|$
- $y = \sqrt{x}$
- $y = \sqrt[3]{x}$

b) Choose the correct transformation (Reflections).

Select an answer

c) Choose the correct transformation (Stretches/Compressions).

Select an answer

d) Choose the correct transformation (Vertical Shifts).

Select an answer

e) Choose the correct transformation (Horizontal Shifts).

Select an answer

Question Help: Message instructor

Question 17

0/1 pt 3 99

Determine the parent function from which the graph of the function shown below can be obtained. Next, identify each transformation that can be applied to the parent function in order to obtain the graph of the function shown below.

$f(x) = -x^3 + 7$

a) Choose the correct parent function.

- $y = x^2$
- $y = x^3$
- $y = |x|$
- $y = \sqrt{x}$
- $y = \sqrt[3]{x}$

b) Choose the correct transformation (Reflections).
Select an answer

c) Choose the correct transformation (Stretches/Compressions).
Select an answer

d) Choose the correct transformation (Vertical Shifts).
Select an answer

e) Choose the correct transformation (Horizontal Shifts).
Select an answer

Question Help: Message instructor

Question 18

0/1 pt 3 99

Determine the parent function from which the graph of the function shown below can be obtained. Next, identify each transformation that can be applied to the parent function in order to obtain the graph of the function shown below.

$f(x) = |x + 9|$

a) Choose the correct parent function.

- $y = x^2$
- $y = x^3$
- $y = |x|$
- $y = \sqrt{x}$
- $y = \sqrt[3]{x}$

b) Choose the correct transformation (Reflections).
Select an answer

c) Choose the correct transformation (Stretches/Compressions).
Select an answer

d) Choose the correct transformation (Vertical Shifts).
Select an answer

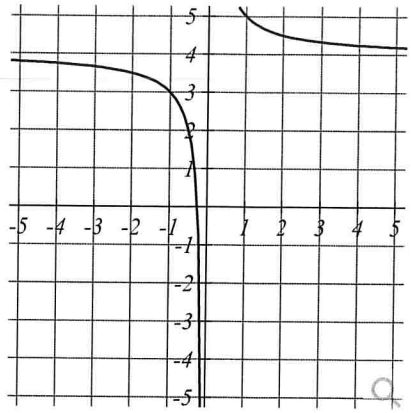
e) Choose the correct transformation (Horizontal Shifts).
Select an answer

Question Help: Message instructor

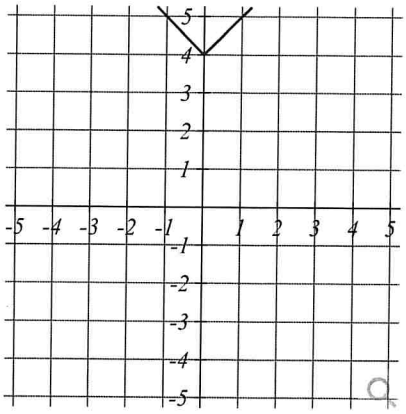
Question 19

0/1 pt 3 99

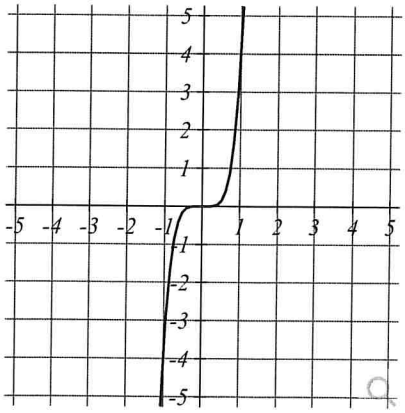
For each graph below, determine if the function is Odd, Even, or Neither



Select an answer



Select an answer



Select an answer

Question Help: Video 1 Video 2 Message instructor

Question 20

0/1 pt 3 99

For each equation below, determine if the function is Odd, Even, or Neither

$f(x) = (x-2)^2$ Select an answer

$g(x) = 2$ Select an answer

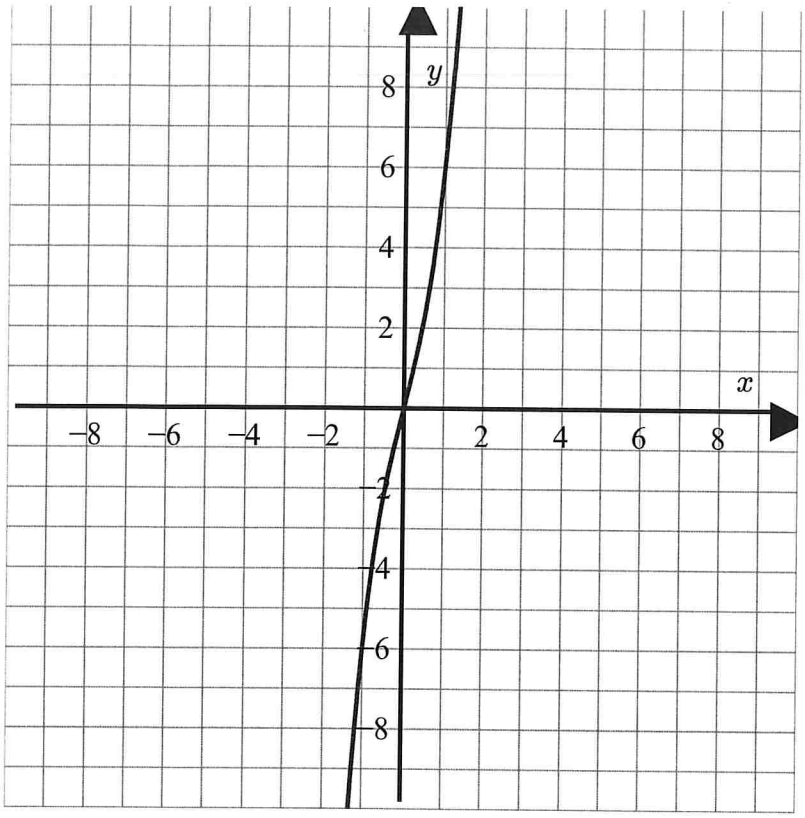
$h(x) = 2x - x^3$ Select an answer

Question Help: Video Message instructor

Question 21

0/1 pt 3 99

Symmetry: determine if the function is Odd, Even, or Neither



$f(x) = 2x^3 + 4x$

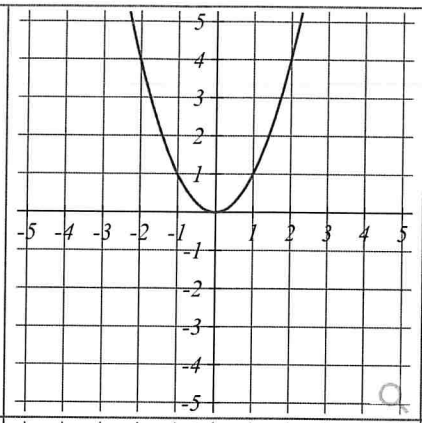
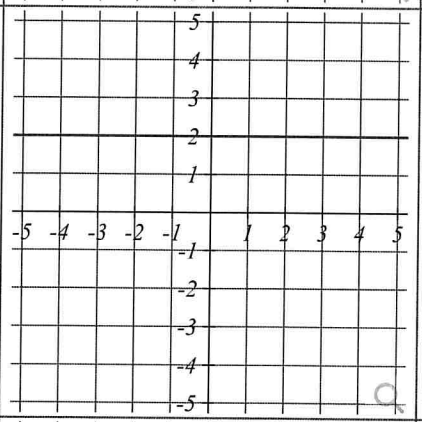
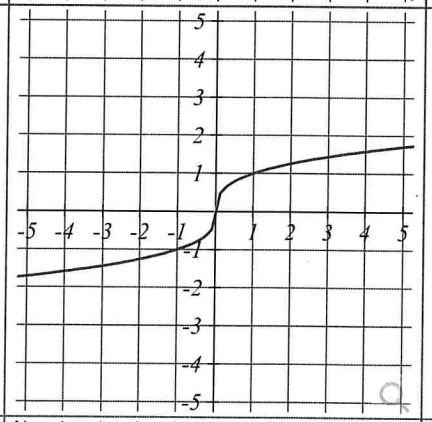
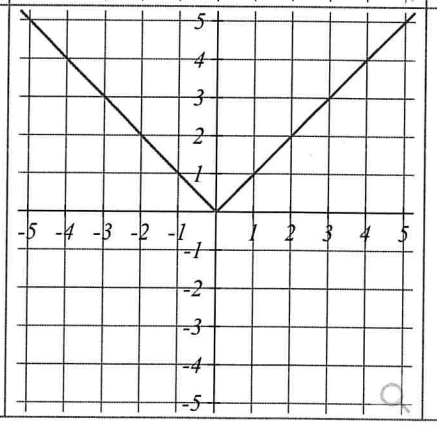
Select an answer

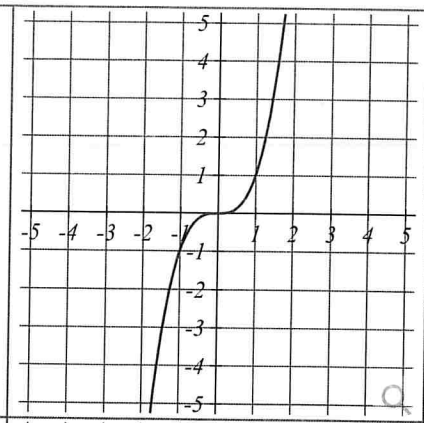
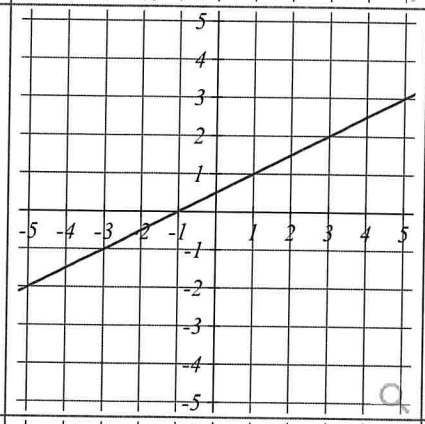
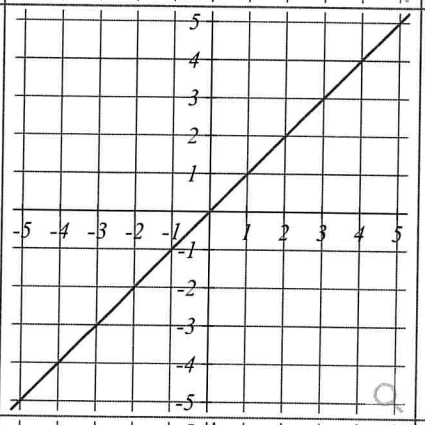
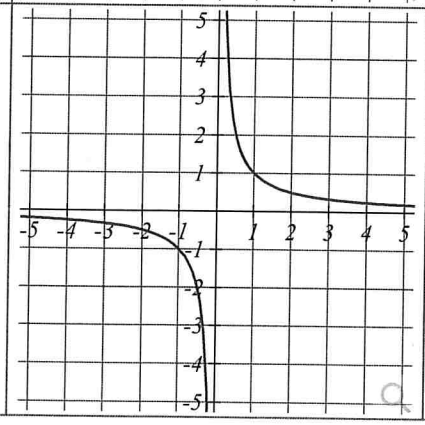
Question Help: Message instructor

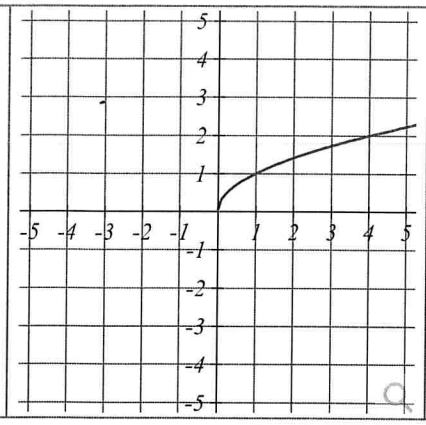
Question 22

0/1 pt 3 99

Identify each of the functions from the function library as even, odd, or neither.

Quadratic Function		Select an answer
Constant Function		Select an answer
Cube Root Function		Select an answer
Absolute Value Function		Select an answer

Cubic Function		Select an answer
Linear Function		Select an answer
Identity Function		Select an answer
Reciprocal Function		Select an answer

Square Root Function		Select an answer

Question Help: Message instructor

Question 23

0/1 pt 3 99

For each equation below, determine if the function is Odd, Even, or Neither

$f(x) = |x| + 3$ Select an answer

$g(x) = x^2 + 3x$ Select an answer

$h(x) = 3x^3 + x$ Select an answer

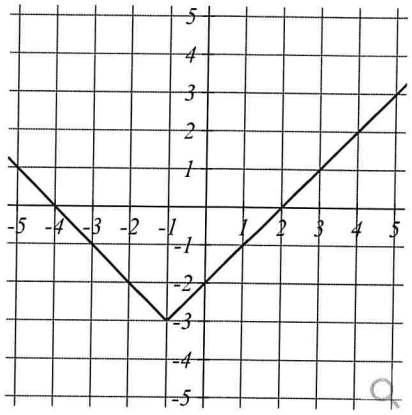
Question Help: Video Message instructor

3.6: Graded Homework

Nicole Cook

Question 1

0/1 pt 3 99



The graph above is the graph of:

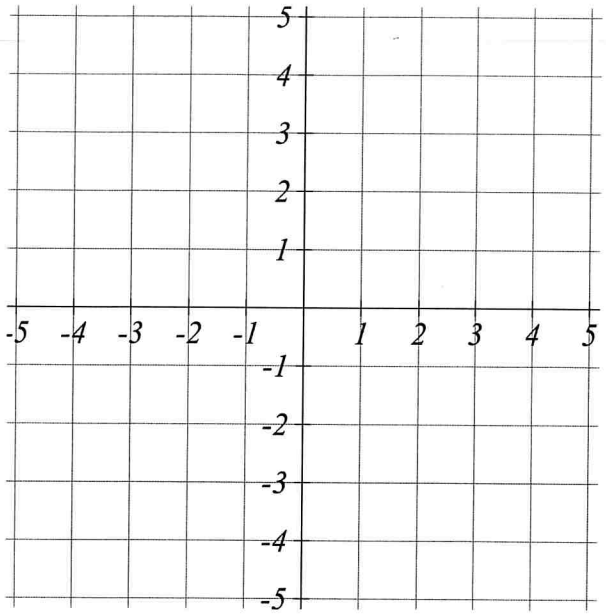
- $y = |x - 3| - 1$
- $y = |x + 1| - 3$
- $y = |x - 1| - 3$

Question Help: Video Message instructor

Question 2

0/1 pt 3 99

Sketch a graph of $f(x) = -|x - 1| + 1$. Before sketching the graph, determine where the function has its minimum or maximum value so you can place your first point there.



The zeros of the function are at the values _____

The x-intercept(s) are at the points _____

The y-intercept is at the point _____

Question Help: Video 1 Video 2 Video 3 Message instructor

Question 3 0/1 pt 3 99

Solve the equation $|2x + 2| = 12$

The solutions are: [ ]

Question Help: Video Message instructor

Question 4 0/1 pt 3 99

Solve the equation $|3x - 1| = 12$.

The solutions are $x_1 =$ [ ] and $x_2 =$ [ ]
where $x_1 \leq x_2$.

Question Help: Video Message instructor

Question 5 0/1 pt 3 99

Solve the equation $-5 + 8|3x - 4| = 27$

The solutions are: [ ]

Question Help: Video Message instructor

Question 6 0/1 pt 3 99

Solve $|x| = 9$

$x =$ _____

To give multiple answers, list your answers separated by a comma

Question Help: Video Message instructor

Question 7 0/1 pt 3 99

Find the x-intercepts (horizontal intercepts) of the function: $f(x) = 5|x - 3| - 6$

The intercepts are at $x =$ [ ] Separate values with commas.

Question Help: Message instructor

3.7: Graded Homework

Nicole Cook

Question 1

0/1 pt 3 99

Below is the table for the function $f(x)$.

x	1	4	7	11	14
y	2	6	9	10	15

Choose the one table below which is the inverse function $f^{-1}(x)$.

x	1	4	7	11	14
y	1/2	1/6	1/9	1/10	1/15

x	2	6	9	10	15
y	1	4	7	11	14

x	1/2	1/6	1/9	1/10	1/15
y	2	6	9	10	15

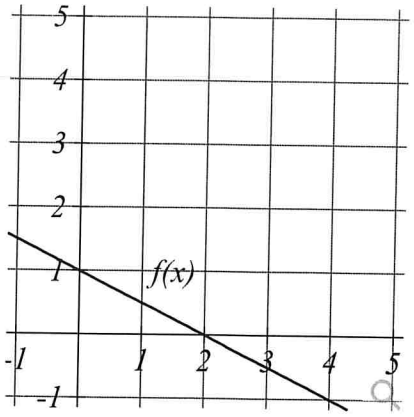
x	14	11	7	4	1
y	15	10	9	6	2

Question Help: Video Message instructor

Question 2

0/1 pt 3 99

Use the graph below to fill in the missing values.



$f(0) =$ _____

$f(x) = 0, \quad x =$ _____

$f^{-1}(0) =$ _____

$f^{-1}(x) = 0, \quad x =$ _____

Question Help: Video Message instructor

Question 3

0/1 pt 3 99

Assume that the function f is a one-to-one function.

(a) If $f(5) = 3$, find $f^{-1}(3)$.

Your answer is

(b) If $f^{-1}(-3) = -9$, find $f(-9)$.

Your answer is

Question Help: Video Message instructor

Question 4

0/1 pt 3 99

Find the inverse of $f(x) = \dfrac{-x-4}{x+2}$

$f^{-1}(x) =$

Question Help: Video Message instructor

Question 5

0/1 pt 3 99

Let $f(x) = 13x + 1$

$f^{-1}(x) =$ [ ]

Question Help: Video Message instructor

Question 6 0/1 pt 3 99

Given: f(x) = $\dfrac{5x+1}{3x-5}$

Find the inverse function, $f^{-1}(x)$.

$f^{-1}(x) =$ [ ]

Question Help: Video Message instructor

Question 7 0/1 pt 3 99

Let $f(x) = 9 + \sqrt{5x-2}$. Find $f^{-1}(x)$.

$f^{-1}(x) =$ [ ] , for $x \geq 9$

Question Help: Video Message instructor

Question 8 0/1 pt 3 99

Let

$f(x) = \dfrac{x+2}{x+8}$

$f^{-1}(-3) =$ [ ]

Question Help: Video Message instructor

Question 9 0/1 pt 3 99

Let $f(x) = (x+6)^2$

Find a domain on which f is one-to-one and non-decreasing.

[ ]

Find the inverse of f restricted to this domain.

$f^{-1}(x) =$ [ ]

Question Help: Video Message instructor

Question 10

0/1 pt 3 99

Let
$f(x) = (x-5)^2$

Find a domain on which f is one-to-one and non-decreasing.

Find the inverse of f restricted to this domain
$f^{-1}(x) =$

Question Help: Video Message instructor

Question 11

0/1 pt 3 99

Let
$f(x) = (x+7)^2$

Find a domain on which f is one-to-one and non-decreasing.

Find the inverse of f restricted to this domain
$f^{-1}(x) =$

Question Help: Video Message instructor

Question 12

0/1 pt 3 99

Let $f(x) = (x-4)^2$

Give the largest domain on which f is one-to-one and non-decreasing.

Give the range of f .

Find the inverse of f restricted to the domain above.
$f^{-1}(x) =$

Give the domain of f^{-1} .

Give the range of f^{-1} .

Question Help: Video Message instructor

Question 13

0/1 pt 3 99

If $f(x) = x + 1$ and $g(x) = x - 1$,

(a) $f(g(x)) =$ ☐

(b) $g(f(x)) =$ ☐

(c) Thus $g(x)$ is called an _____ function of $f(x)$

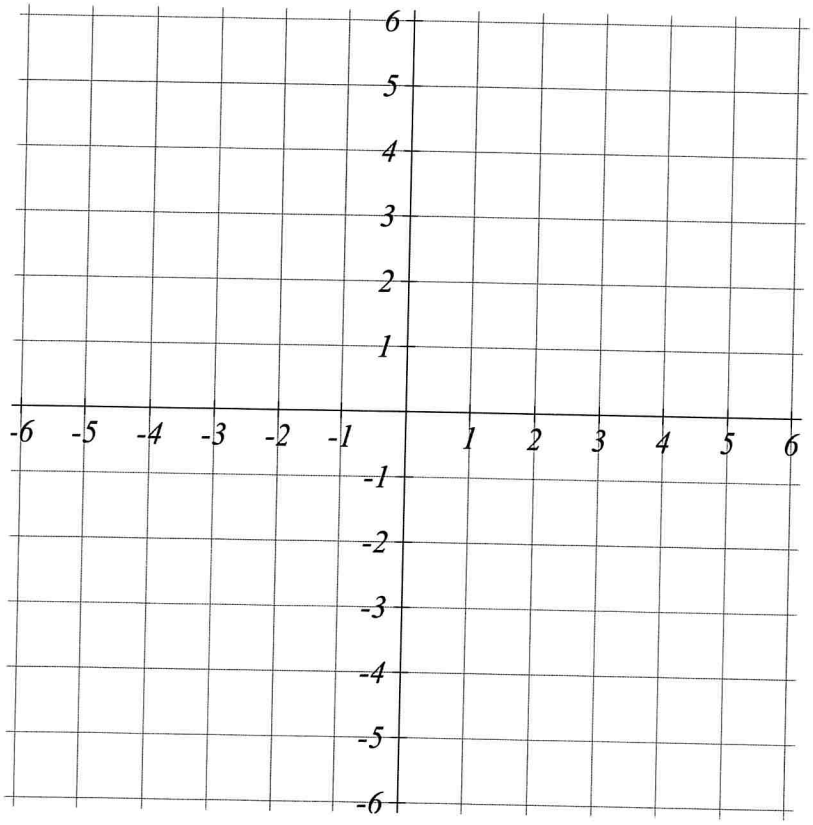
Question Help: Video Message instructor

Question 14

0/1 pt 3 99

Find and draw the inverse of the function $f(x) = 5x^2$.

$f^{-1}(x) =$ ☐

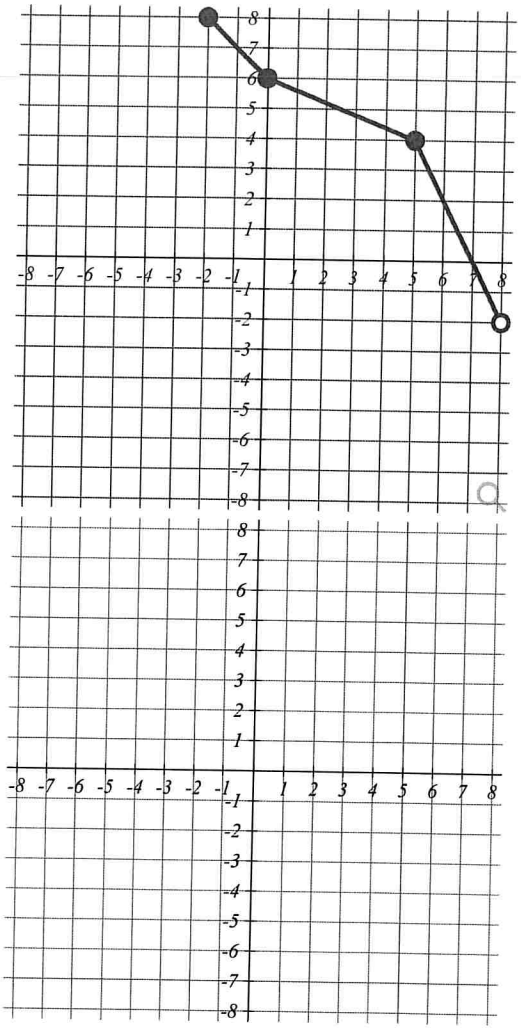


Question Help: Message instructor

Question 15

0/1 pt 3 99

Plot the inverse of the function shown on the grid below.



Question Help: Message instructor

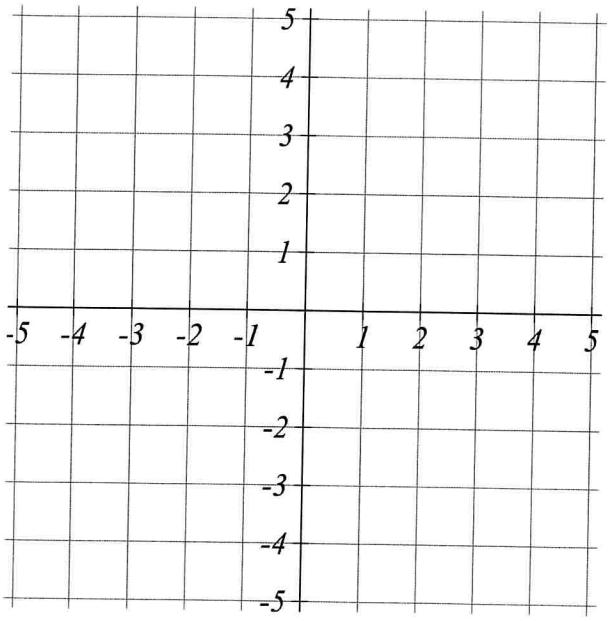
Question 16

0/1 pt 3 99

Find the inverse of the function $f(x) = \frac{3}{5}x - 5$.

$f^{-1}(x) =$ [ ]

Draw the functions f and f^{-1}



Question Help: Message instructor