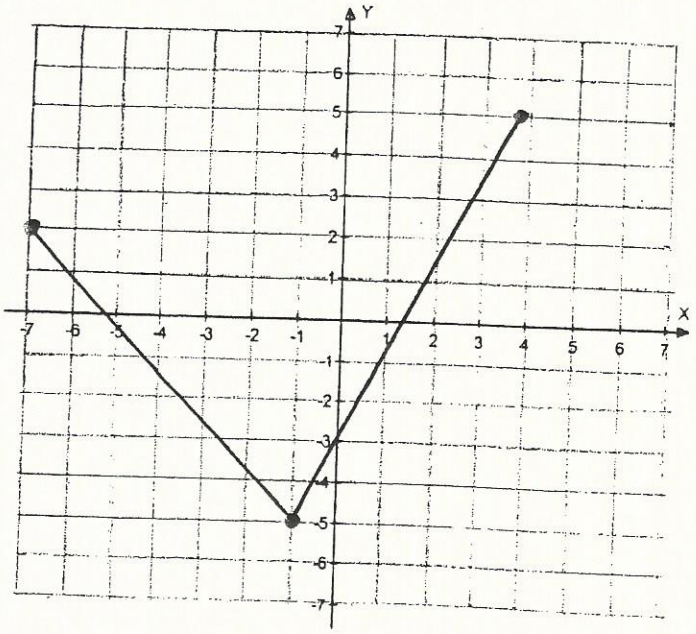
Functions Problem Type B

e.g. The following graph represents functional situation f .



Indicate whether each of the following statements is true or false.

a) The function has a minimum and two maximums. _____

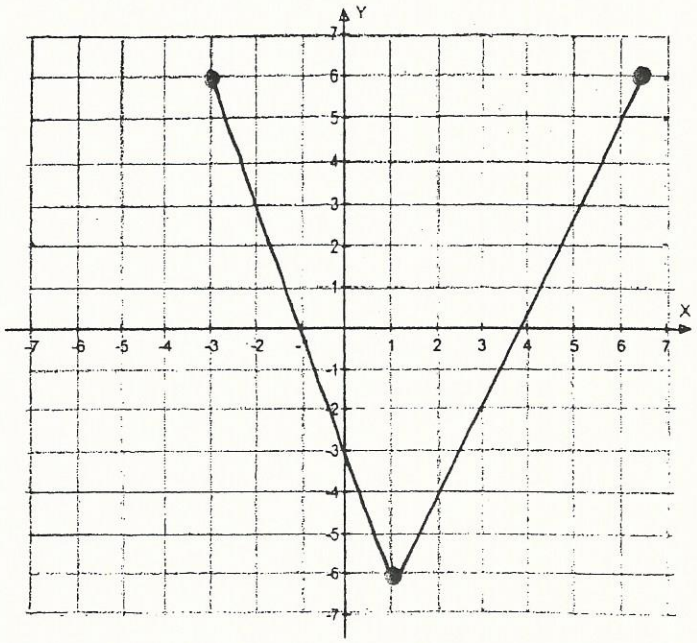
b) The domain is $[-5, 5]$. _____

c) The function has no axis of symmetry. _____

d) The *y*-intercept is -5. _____

(c)

B 1. The following graph represents functional situation f.



Indicate whether each of the following statements is true or false.

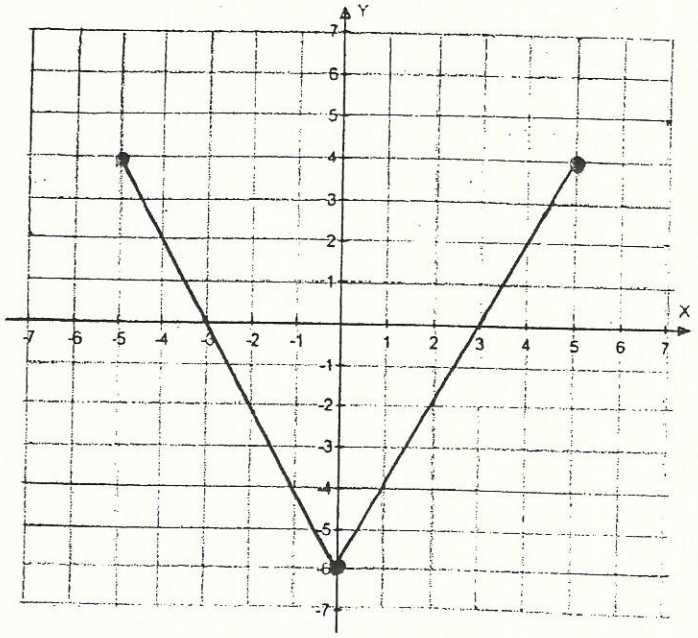
a) The function has a minimum and two maximums. _____

b) The domain is $[-6, 6]$. _____

c) The function has no axis of symmetry. _____

d) The *y*-intercept is -3. _____

B 2. The following graph represents functional situation f .



Indicate whether each of the following statements is true or false.

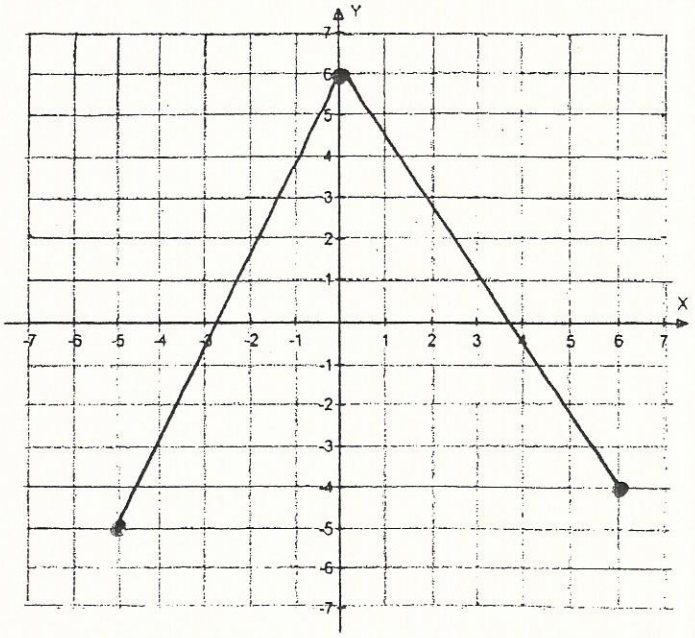
a) The function has a minimum and two maximums. _____

b) The domain is $[-5,5]$. _____

c) The function has no axis of symmetry. _____

d) The *y*-intercept is 3 . _____

B 3. The following graph represents functional situation f .



Indicate whether each of the following statements is true or false.

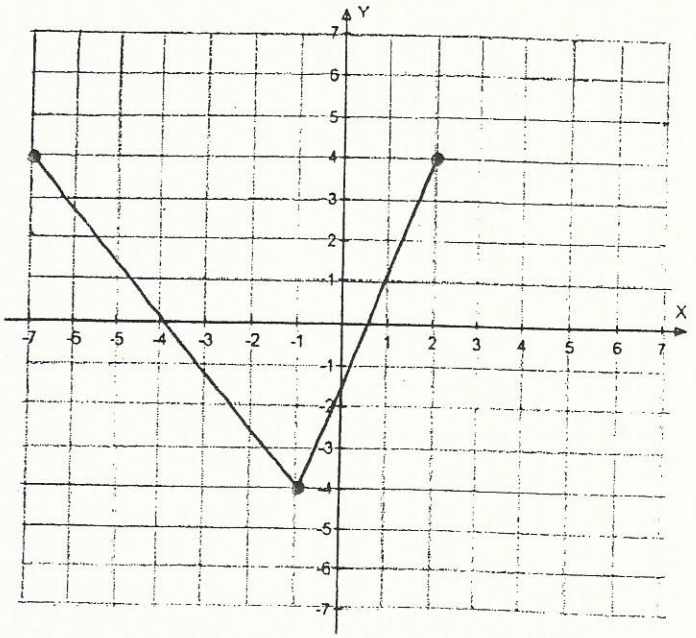
a) The function has a minimum and two maximums. _____

b) The domain is $[-3, 4]$. _____

c) The function has no axis of symmetry. _____

d) The *y*-intercept is 6 . _____

B 4. The following graph represents functional situation f.



Indicate whether each of the following statements is true or false.

a) The function has a minimum and two maximums. _____

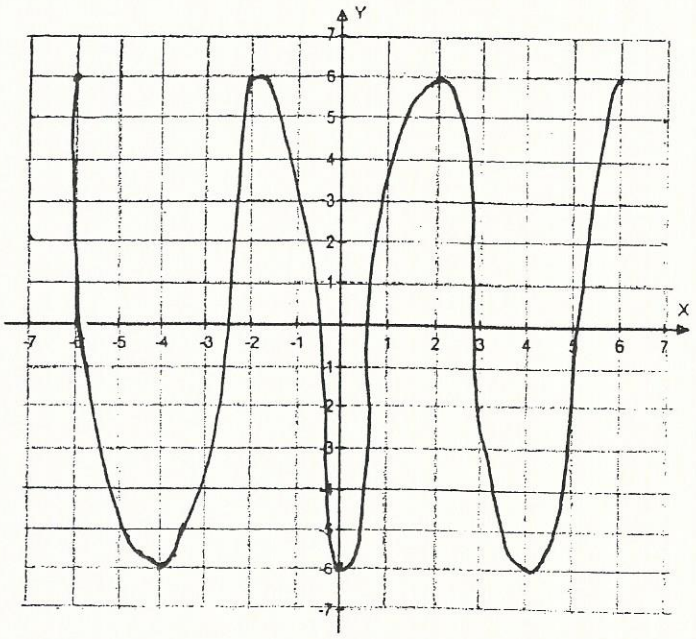
b) The domain is $[-4,4]$. _____

c) The function has no axis of symmetry. _____

d) The *y*-intercept is -4. _____

Functions Problem Type C

e.g. The following graph represents functional situation g.



Indicate whether each of the following statements is true or false.

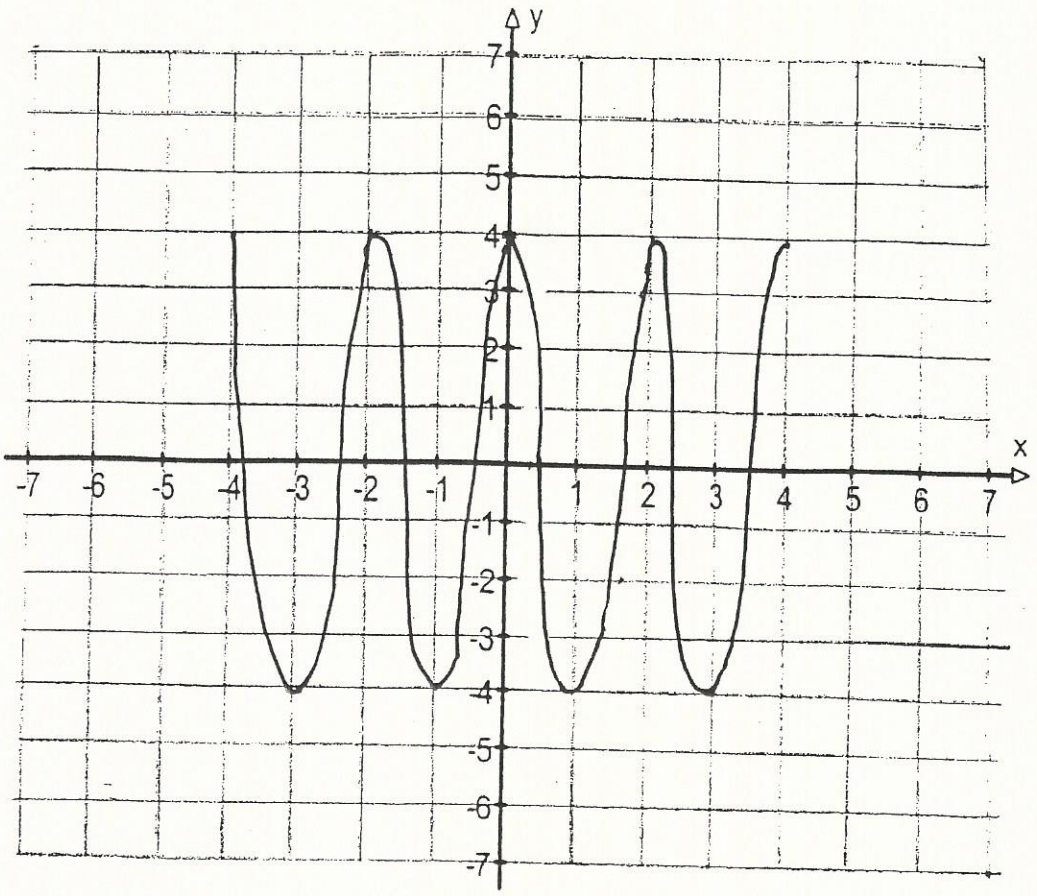
a) Function g is both decreasing and positive over the interval $[-2, -0.5]$. _____

b) $g(0) = g(2) = g(4)$ _____

c) The range and the domain of the function are $[-6, 6]$. _____

d) The values $x = 0$ and $x = -6$ are the *x*-intercepts of this function. _____

C- 1. The following graph represents functional situation g.



Indicate whether each of the following statements is true or false.

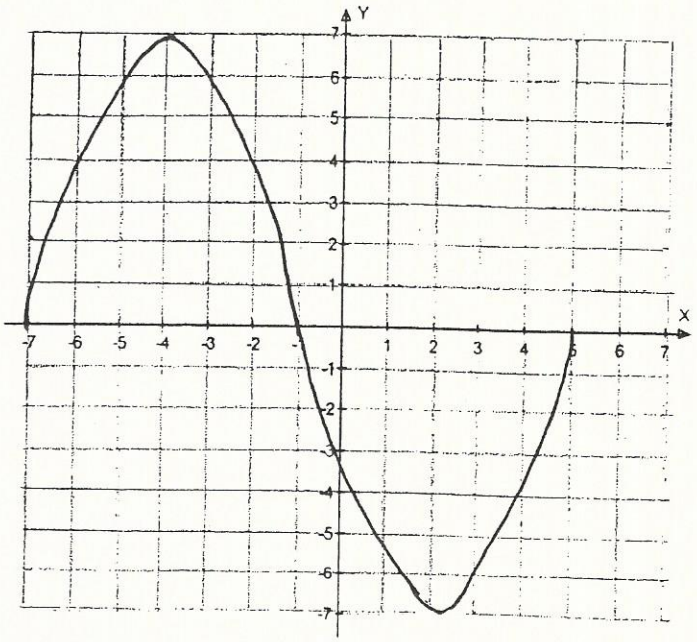
a) Function g is both decreasing and positive over the interval $[0, 0.5]$. _____

b) $g(0) = g(3) = g(-2)$ _____

c) The range and the domain of the function are $[-4, 4]$. _____

d) The values $x = 0$ and $x = 3.5$ are the *x*-intercepts of this function. _____

C- 2. The following graph represents functional situation g.



Indicate whether each of the following statements is true or false.

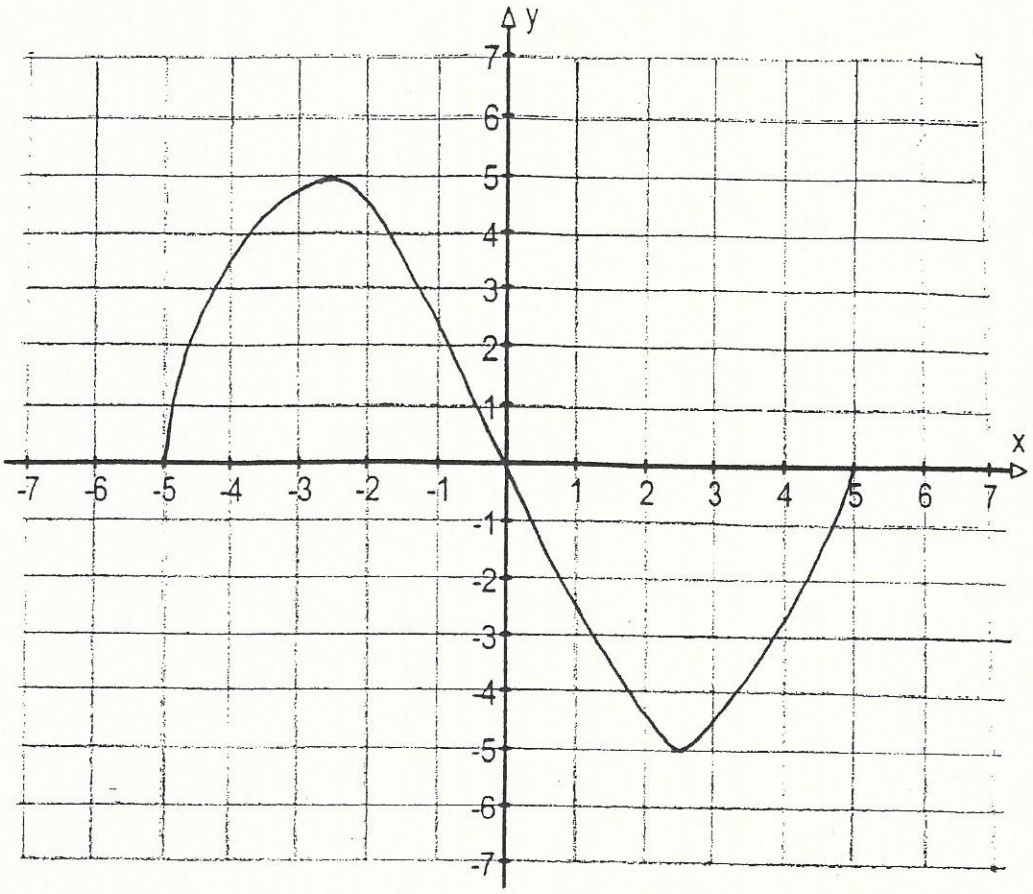
a) Function g is both decreasing and positive over the interval $[-4, 0]$. _____

b) $g(-7) = g(-1) = g(2)$ _____

c) The range and the domain of the function are $[-7, 5]$. _____

d) The values $x = -1$ and $x = 0$ are the *x*-intercepts of this function. _____

C- 3. The following graph represents functional situation g.



Indicate whether each of the following statements is true or false.

a) Function g is both decreasing and positive over the interval $[-5, -2.5]$. _____

b) $g(-5) = g(0) = g(5)$ _____

c) The range and the domain of the function are $[-5, 5]$. _____

d) The values $x = 0$ and $x = 5$ are the *x*-intercepts of this function. _____

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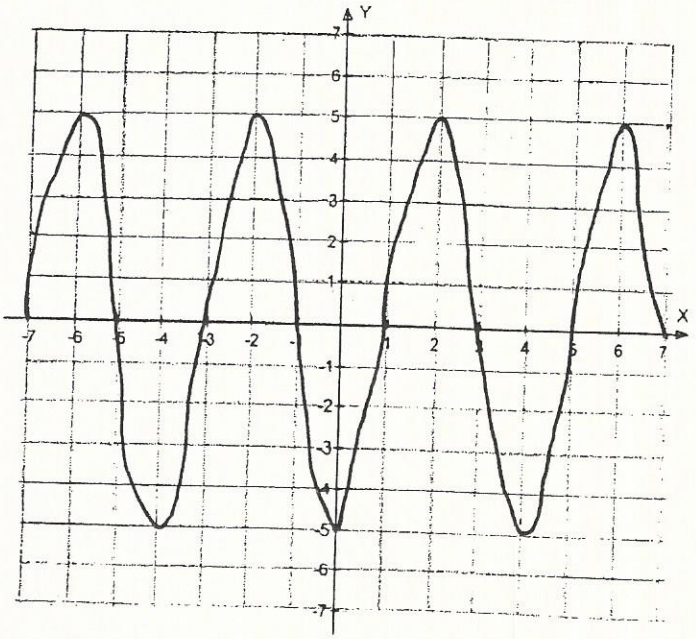
C- 4. The following graph represents functional situation g.



Indicate whether each of the following statements is true or false.

a) Function g is both decreasing and positive over the interval $[6, 7]$. ____

b) $g(-2) = g(2) = g(6)$ ____

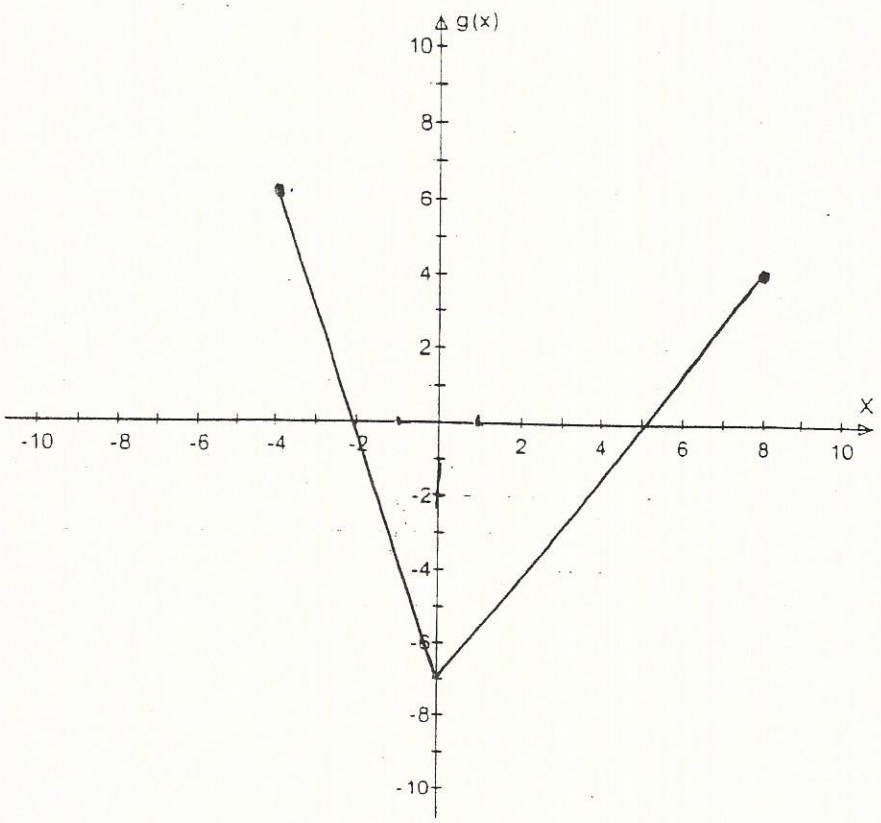
c) The range and the domain of the function are $[-7, 7]$. ____

d) The values $x = -5$ and $x = 0$ are the x-intercepts of this function. ____

Functions Problem Type D

The following graph represents functional situation g.

e.g.



Determine the following characteristics of this function.

a) Domain: _____

b) Range: _____

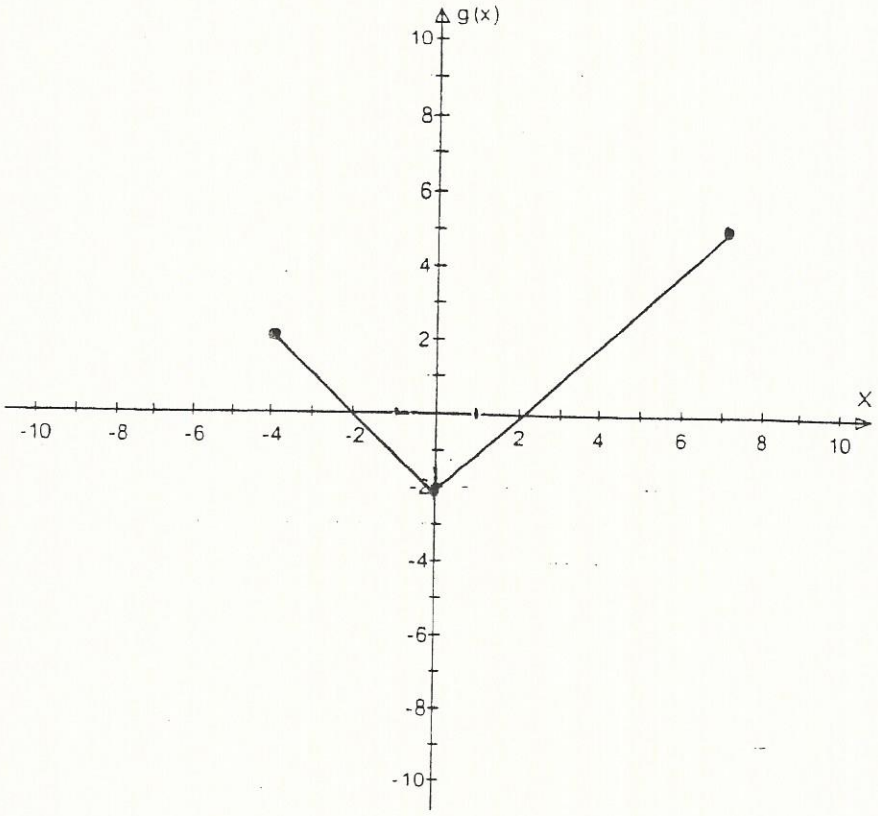
c) Zero(s): _____

d) The minimum of g: _____

e) The interval over which the function is both increasing and negative:

_____

D- 1. The following graph represents functional situation g.



Determine the following characteristics of this function.

a) Domain: _____

b) Range: _____

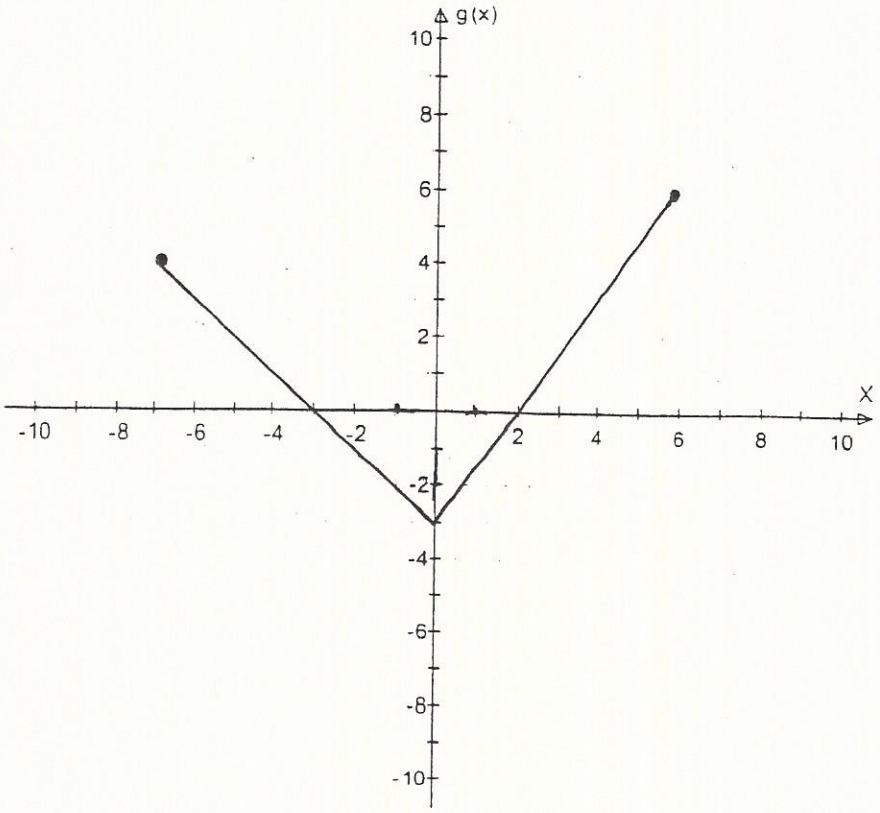
c) Zero(s): _____

d) The minimum of g: _____

e) The interval over which the function is both increasing and negative:

_____

D-2. The following graph represents functional situation g.



Determine the following characteristics of this function.

a) Domain:_____

b) Range:_____

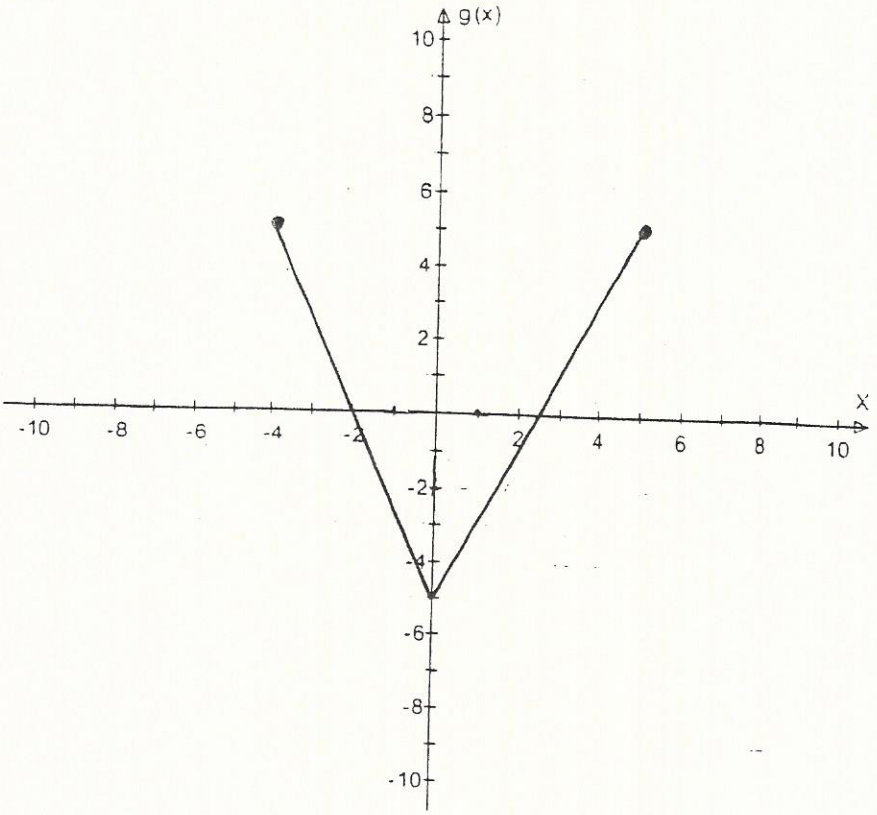
c) Zero(s):_____

d) The minimum of g:_____

e) The interval over which the function is both increasing and negative:

_____

D- 3. The following graph represents functional situation g.



Determine the following characteristics of this function.

a) Domain: _____

b) Range: _____

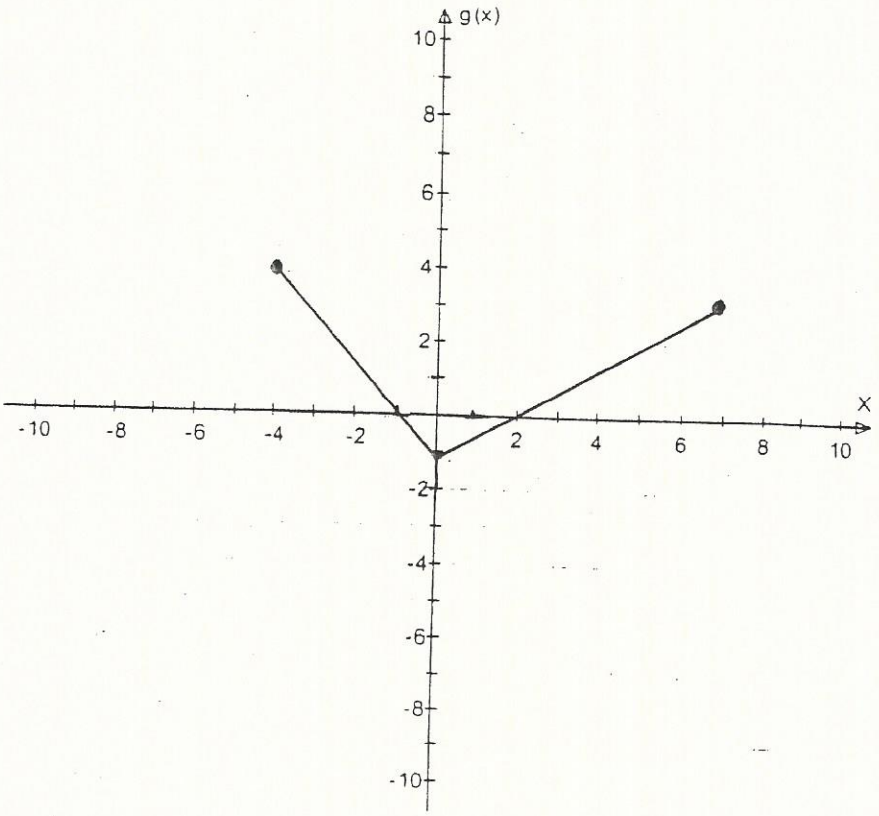
c) Zero(s): _____

d) The minimum of g: _____

e) The interval over which the function is both increasing and negative:

_____

D- 4. The following graph represents functional situation g.



Determine the following characteristics of this function.

a) Domain: _____

b) Range: _____

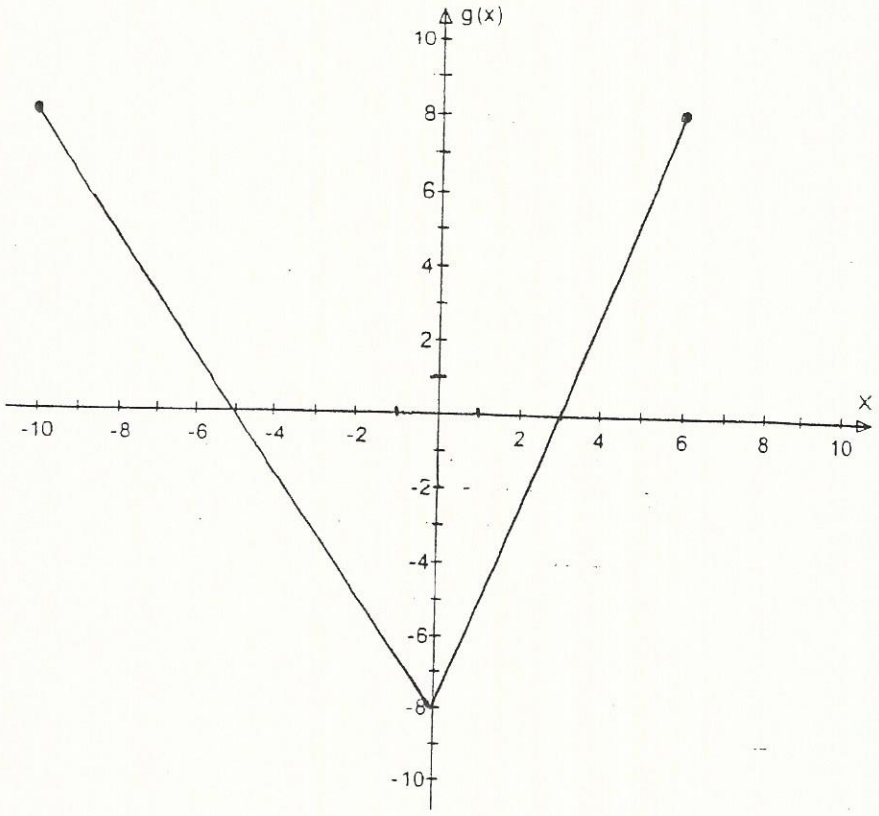
c) Zero(s): _____

d) The minimum of g: _____

e) The interval over which the function is both increasing and negative:

_____

D-5. The following graph represents functional situation g.



Determine the following characteristics of this function.

a) Domain: _____

b) Range: _____

c) Zero(s): _____

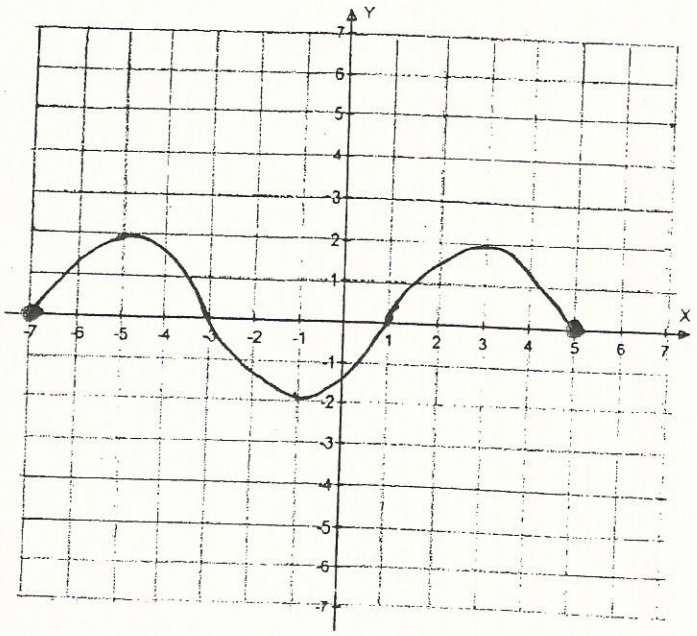
d) The minimum of g: _____

e) The interval over which the function is both increasing and negative:

_____

Functions Problem Type E...

e.g. The graph below represents functional situation $f(x)$. Determine the following characteristics of this function.



a) Domain: _____

b) Range: _____

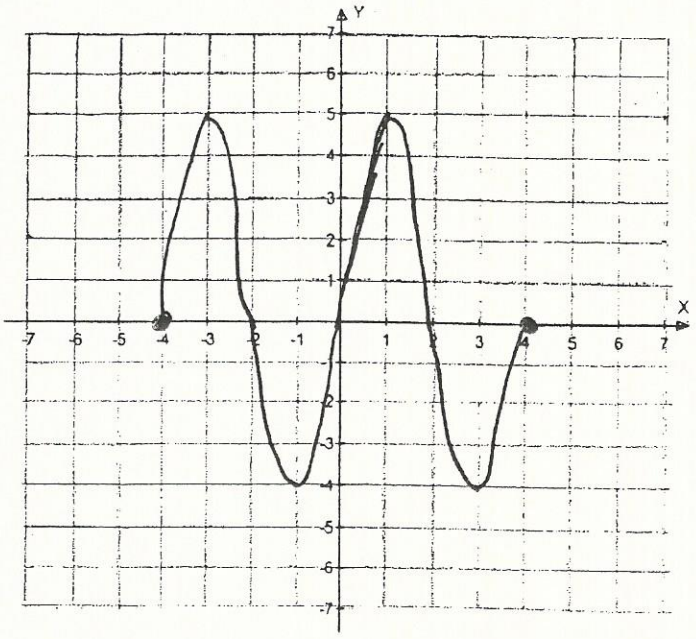
c) An interval over which the function is both decreasing and positive: _____

d) $f(3)$ = _____

e) The maximum of $f(x)$: _____

E- 1.

The graph below represents functional situation $f(x)$. Determine the following characteristics of this function.



a) Domain: _____

b) Range: _____

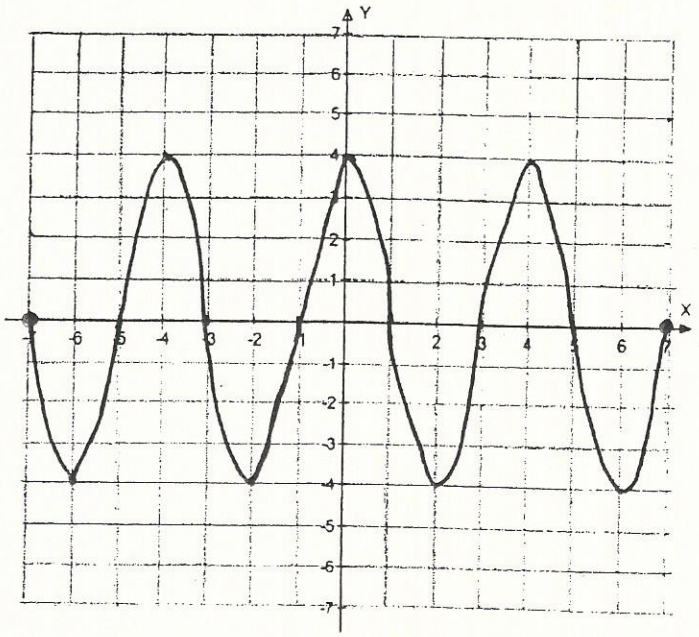
c) An interval over which the function is both decreasing and positive: _____

d) $f(0)$ = _____

e) The maximum of $f(x)$: _____

E- 2.

The graph below represents functional situation $f(x)$. Determine the following characteristics of this function.



a) Domain:_____

b) Range:_____

c) An interval over which the function is both decreasing and positive:_____

d) $f(1)$ = _____

e) The maximum of $f(x)$: _____

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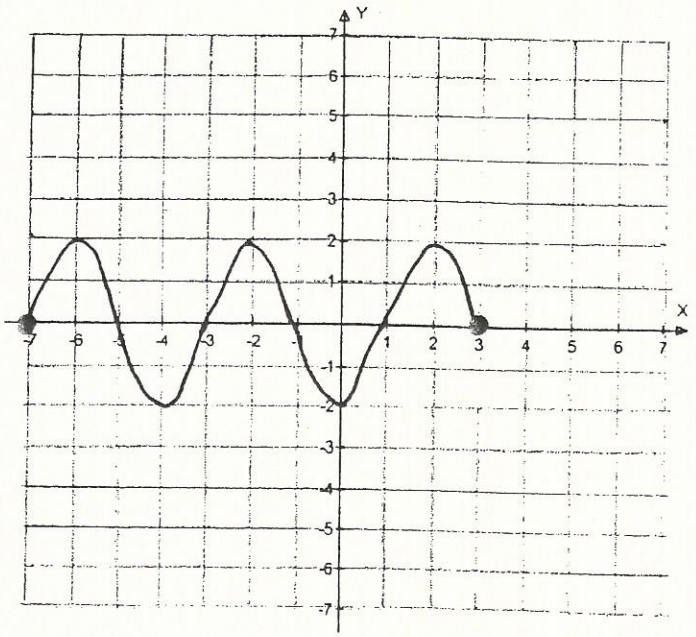
E- 3.

The graph below represents functional situation $f(x)$. Determine the following characteristics of this function.



a) Domain: _____

b) Range: _____

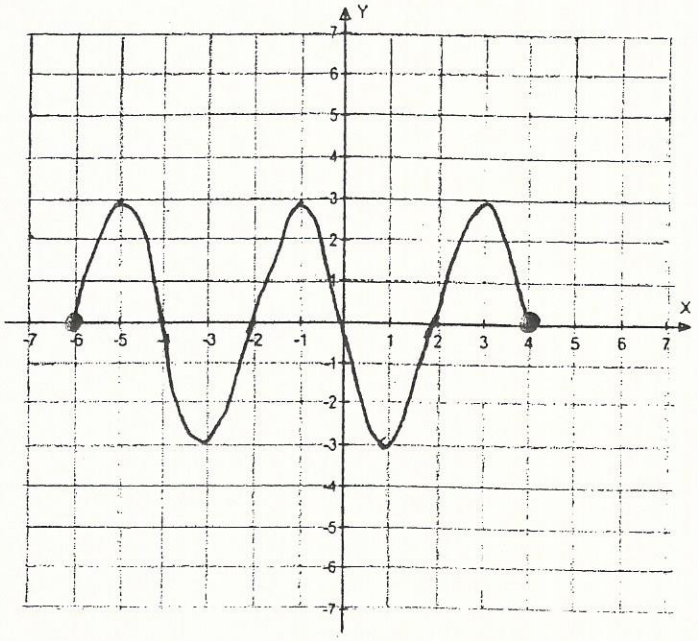
c) An interval over which the function is both decreasing and positive: _____

d) $f(0)$ = _____

e) The maximum of $f(x)$: _____

E-4.

The graph below represents functional situation $f(x)$. Determine the following characteristics of this function.



a) Domain: _____

b) Range: _____

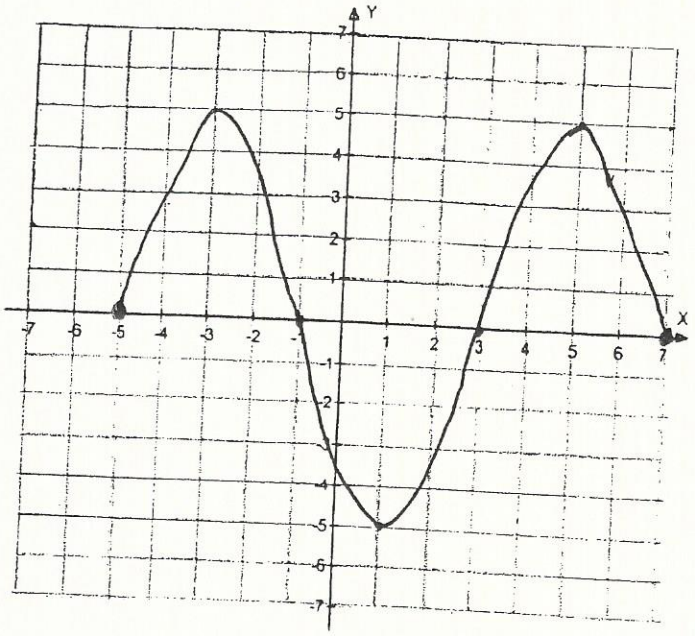
c) An interval over which the function is both decreasing and positive: _____

d) $f(1) =$ _____

e) The maximum of $f(x)$: _____

E- 5.

The graph below represents functional situation $f(x)$. Determine the following characteristics of this function.



a) Domain: _____

b) Range: _____

c) An interval over which the function is both decreasing and positive: _____

d) $f(-3)$ = _____

e) The maximum of $f(x)$: _____

ANSWERS

B

1.	2.	3.	4.
a) F	a) F	a) F	a) F
b) F	b) T	b) F	b) F
c) T	c) F	c) T	c) T
d) T	d) F	d) T	d) F

C

1.	2.	3.	4.
a) T	a) F	a) F	a) T
b) F	b) F	b) T	b) T
c) T	c) F	c) T	c) F
d) F	d) F	d) T	d) F

D

1.	2.	3.
a) $[-4,7]$	a) $[-7,6]$	a) $[-4,5]$
b) $[-2,5]$	b) $[-3,6]$	b) $[-5,5]$
c) -2 and 2	c) -3 and 2	c) -2 and 2.5
d) -2	d) -3	d) -5
e) $[0,2]$	e) $[0,2]$	e) $[0,2.5]$

D

4.	5.
a) $[-4,7]$	a) $[-10,6]$
b) $[-1,4]$	b) $[-8,8]$
c) -1 and 2	c) -5 and 3
d) -1	d) -8
e) $[0,2]$	e) $[0,3]$

E ①
a) $[-4,4]$
b) $[-4,5]$
c) $[-3,-2]$ or $[1,2]$
d) 0
e) 5

E ②
a) $[-7,7]$
b) $[-4,4]$
c) $[-4,-3]$ or $[0,1]$ or $[4,5]$
d) 0
e) 4

E ③ a) $[-7, 3]$

b) $[-2, 2]$

c) $[-6, -5]$ or $[-2, -1]$ or $[2, 3]$

d) -2

e) 2

④ a) $[-6, 4]$

b) $[-3, 3]$

c) $[-5, -4]$ or $[-1, 0]$ or $[3, 4]$

d) -3

e) 3

⑤ a) $[-5, 7]$

b) $[-5, 5]$

c) $[-3, -1]$ or $[5, 7]$

d) 5

e) 5