

F2 Mathematics Chapter 8 Graphs of Functions Objective Practice 1.0

1. Given the function $y = x^2 + 2 - 4x - 7$, when $x = -4$, $y =$
A -5
B -37
C 20
D 27
2. Given $y = \frac{x}{3} - 1$ and $x = 12$, 9, 6, 3, ..., then the corresponding values of y are
A 4, 3, 2, 1, ...
B 3, 2, 1, 0, ...
C 2, 1, 0, -1, ...
D 1, 0, -1, -2, ...
3. Among the following points, which of them satisfy the function $y = \frac{2}{3}x - \frac{1}{4}$?
A $(1, -\frac{5}{12})$
B $(1, \frac{5}{12})$
C $(\frac{1}{12}, \frac{1}{2})$
D $(\frac{1}{2}, -\frac{1}{12})$
4. Given that the graph of $y = 5x - \frac{1}{2}$ passes through the points $(k, 7)$, then the value of k is
A 1
B $\frac{1}{2}$
C $\frac{3}{2}$
D $\frac{13}{20}$

5. Given that the graph of $y = 2x^2 + 3x - h$ passes through the point $(-1, 2)$, then the value of h is

A -3 **C** 2
B 0 **D** 3

6. Given that the graph of $y = -x^2 + 3x - 4$ passes through the point $(-3, n)$, then the value of n is

A -4
B -22
C 14
D 68

7. The graph of the function $y = -2x^2 + 5x - 9$ intersects the y -axis at the point

A -9 **C** 4
B 0 **D** 9

8. Which of the following points is not located on the straight line $y = 5x + 6$?

A $(-1, 1)$
B $(-2, 4)$

C $(\frac{1}{5}, -5)$

D $(-\frac{2}{5}, -8)$

9.

x	0	1	2	3
y	-1	2	5	8

The table above shows the values of x and y for the function

A $y = 3x$
B $y = 2x - 1$
C $y = 2x + 1$
D $y = 3x - 1$

10.

x	0	4	8	12
y	-2	-1	0	1

The table above shows the values of x and y for the function

A $y = \frac{1}{2}x - 2$
B $y = -\frac{1}{2}x - 2$
C $y = \frac{1}{4}x - 2$
D $y = -\frac{1}{4}x - 2$

11.

x	-1	0	1	2
y	-4	-3	0	5

The above table shows the values of x and y for the function

A $y = x - 3$
B $y = 2x - 2$
C $y = x^2 - x - 6$
D $y = x^2 + 2x - 3$

12. The graph of a function passes through the points $(1, 1)$, $(2, -1)$, $(3, -3)$, $(4, -5)$. The function is

A $y = 2x - 1$
B $y = 3x - 2$
C $y = -2x + 3$
D $y = -3x + 4$

13. The point $(2, 3)$ is not on the graph of function

A $y = x + 1$
B $y = 2x - 1$
C $y = x^2 - 2$
D $y = x^3 - 5$

14.

x	-1	0	1	2
y	-9	-7	-5	9

The table above shows the values of x and y for the function

A $y = 2x - 7$
B $y = -3x - 12$
C $y = 2x^2 - 9$
D $y = 2x^3 - 7$

15.

x	-2	-1	0	1
y	8	-1	-4	-1

The table above shows the values of x and y for the function $y = 3x^2 - m$. The value of m is

A 8
B 4
C -4
D -8

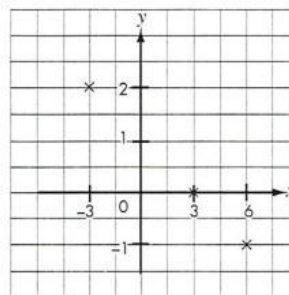
16.

x	-2	-1	0	1	2
y	-19	-5	-3	-1	p

The table above shows the values of x and y for the function $y = 2x^3 - 3$. The value of p is

A 3 **C** 9
B 5 **D** 13

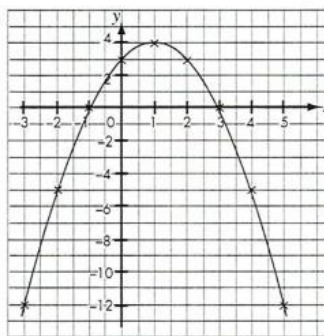
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In the diagram above, three points are plotted on a cartesian plane. Based on their coordinates, find the relationship between x and y .

A $y = x + 5$
B $y = -3x - 7$
C $y = -\frac{1}{3}x + 1$
D $y = -\frac{1}{2}x + 1$

18.

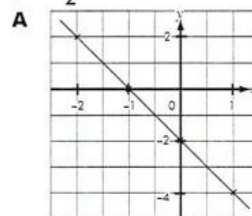


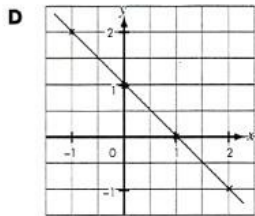
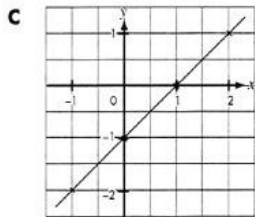
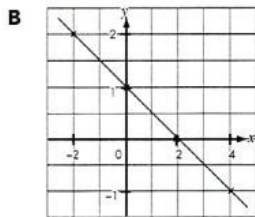
In the graph above, when $y = -8$, one of the corresponding values of x is

A -2.8
B -2
C 4
D 4.5

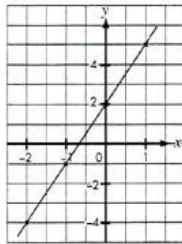
19. Among the following graphs which is the graph of

$y = -\frac{1}{2}x + 1$?





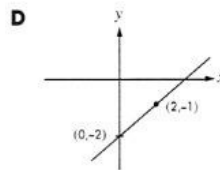
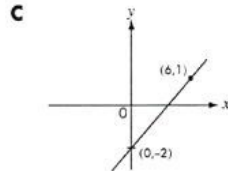
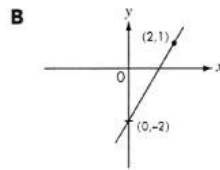
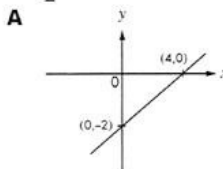
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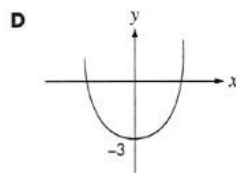
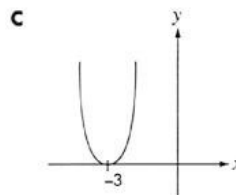
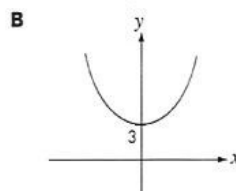
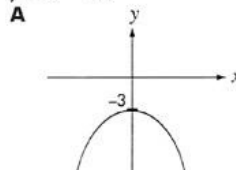
Among the following, which is the function for the above graph?

- A** $y = 2x$
B $y = -2x - 8$
C $y = 3x + 2$
D $y = \frac{1}{2}x - 3$

21. Which of the following graphs **cannot** represent the function $y = \frac{1}{2}x - 2$?



22. Among the following graphs, which is the graph of function $y = x^2 - 3$?



23. Among the following, which is the table of values for the function $y = 2x^2 - x - 3$?

A

x	-2	-1	0	1	2
y	7	1	-3	-5	-5

B

x	-2	-1	0	-1	2
y	3	0	-3	-4	-3

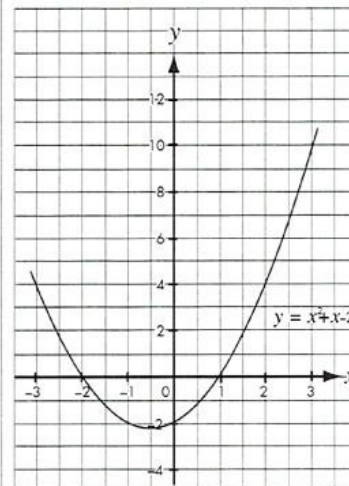
C

x	-2	-1	0	1	2
y	7	0	-3	-2	3

D

x	-2	-1	0	1	2
y	3	-1	-3	-3	-1

Questions 24 and 25 are based on the following graph.



24. When $x = 3$, the value of y is

- A** 10
B 6
C 4
D -2

25. When $y = 4$, the values of x =

- A** -3
B 2
C -3 and 2
D 3 and -2