

1. Given $y = 2x^3 - x$, find the value of y when $x = -2$.
Diberi $y = 2x^3 - x$, cari nilai y apabila $x = -2$.

- ☐ A -6
☐ B -10
☐ C -14
☐ D -48

2. Given $Q = \{(3, 6), (4, 8), (5, 10), (6, 12), (7, 14)\}$. State the range.
Diberi $Q = \{(3, 6), (4, 8), (5, 10), (6, 12), (7, 14)\}$. Nyatakan julat.

- ☐ A $\{6, 8, 10, 12, 14\}$
☐ B $\{3, 4, 5, 6, 7\}$
☐ C $\{3, 4, 5, 6, 10, 12\}$
☐ D $\{3, 4, 5, 6, 7, 8, 10, 12, 14\}$

3. Given a function $y = x^2 - 5$, find the value of y when $x = -3$.
Diberi fungsi $y = x^2 - 5$, cari nilai y apabila $x = -3$.

- ☐ A -14
☐ B -11
☐ C 1
☐ D 4

4. The table shows some values of x and the corresponding values of y for a certain function.
Jadual di bawah menunjukkan sebahagian nilai x dan nilai y yang sepadan untuk suatu fungsi tertentu.

x	0	4	7
y	-3	5	11

The function is
Fungsi itu ialah

- ☐ A $y = x^2 - 3$
☐ B $y = 4x - 3$
☐ C $y = 2x - 3$
☐ D $y = -3 - 2x$

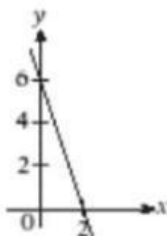
5. Given the length of a rectangle is twice its width.
Write a relationship between the area, $A \text{ cm}^2$ and the width, $x \text{ cm}$ of the rectangle.
Diberi panjang sebuah segi empat tepat adalah dua kali lebarnya.
Tulis satu hubungan antara luas, $A \text{ cm}^2$ dengan lebar, $x \text{ cm}$, segi empat tepat itu.

- ☐ A $A = 6x$
☐ B $A = x^2$
☐ C $A = 4x$
☐ D $A = 2x^2$

6. Which of the following is the table of values for the function $y = 4x^3 - 1$?
 Antara berikut, yang manakah jadual nilai bagi fungsi $y = 4x^3 - 1$?

- ☐ A
- | | | | |
|---|----|---|---|
| x | -1 | 0 | 1 |
| y | -5 | 0 | 3 |
- ☐ B
- | | | | |
|---|----|----|----|
| x | -1 | 0 | 1 |
| y | -5 | -1 | 11 |
- ☐ C
- | | | | |
|---|----|----|---|
| x | -1 | 0 | 1 |
| y | -3 | -1 | 3 |
- ☐ D
- | | | | |
|---|----|----|---|
| x | -1 | 0 | 1 |
| y | -5 | -1 | 3 |

7. The diagram shows the graph of a function on a Cartesian plane.
 Rajah di bawah menunjukkan graf suatu fungsi pada satu satah Cartes.



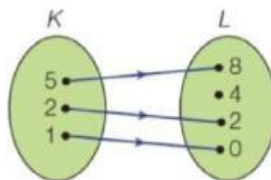
What is the value of x when $y = 0$?
 Apakah nilai x apabila $y = 0$?

- ☐ A 0
- ☐ B 2
- ☐ C 6
- ☐ D 8

8. Which of the following is a function?
 Antara berikut, yang manakah merupakan fungsi?

- ☐ A
-
- ☐ B
-
- ☐ C $\{(-6, -3), (-6, 3), (-3, 1), (-1, 1)\}$
- ☐ D
-

9. The diagram shows the relation between set K and set L.
Rajah di bawah menunjukkan hubungan antara set K dan set L.



What is the range in the relation?
Apakah julat dalam hubungan itu?

- ☐ A {4}
☐ B {2, 4}
☐ C {0, 2, 8}
☐ D {0, 2, 4, 8}

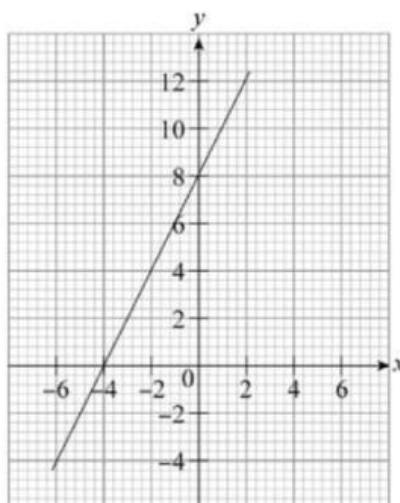
10. Given $y = (x - 1)(x - 3)$. What is the value of x when $y = 0$?
Diberi $y = (x - 1)(x - 3)$. Apakah nilai x apabila $y = 0$?

- ☐ A $x = 1$ or 2
☐ B $x = 2$ or 3
☐ C $x = 1$ or 3
☐ D $x = 2$ or 4

11. Given $y = 4 - 3x$, find the value of y when $x = 4$.
Diberi $y = 4 - 3x$, cari nilai y apabila $x = 4$.

- ☐ A -8
☐ B 8
☐ C -12
☐ D 12

12. The diagram shows the graph of function $y = 2x + 8$.
Rajah di bawah menunjukkan graf bagi fungsi $y = 2x + 8$.



Find the value of y when $x = 0$.
Cari nilai y apabila $x = 0$.

- ☐ A -4
☐ B 8
☐ C 10
☐ D 12

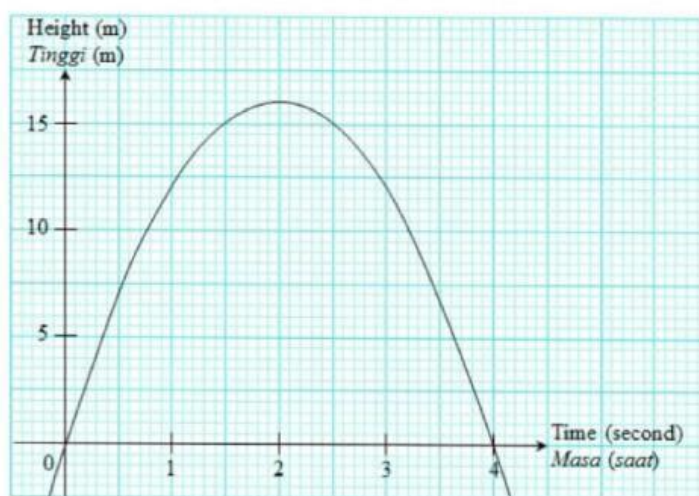
13. Which of the following points lie on the straight line $y = 4 - 3x$?
Antara titik berikut, yang manakah terletak pada garis lurus $y = 4 - 3x$?

I (1, 1)
II (3, 5)
III (-1, 7)

- ☐ A I only
I sahaja
- ☐ B I and II only
I dan II sahaja
- ☐ C I and III only
I dan III sahaja
- ☐ D II and III only
II dan III sahaja

14. The diagram shows the graph of a function. A stone is thrown upwards from the ground and its height at various times is shown in the graph.

Rajah di bawah menunjukkan suatu graf fungsi. Sebiji batu dibaling ke atas dari tanah dan tingginya pada masa tertentu ditunjukkan dalam graf itu.



Find the height, in m, of the stone at time 1 second.
Cari tinggi, dalam m, batu itu pada masa 1 saat.

- ☐ A 10
- ☐ B 11
- ☐ C 12
- ☐ D 14

15. Given $T = \{(3, 9), (4, 12), (5, 15), (6, 18), (7, 21)\}$. State the range.
Diberi $T = \{(3, 9), (4, 12), (5, 15), (6, 18), (7, 21)\}$. Nyatakan julat.

- ☐ A {3, 4, 5, 6, 7}
- ☐ B {9, 12, 15, 18, 21}
- ☐ C {3, 4, 5, 6, 7, 9, 12, 15, 18, 21}
- ☐ D {3, 4, 5, 6, 7, 9, 12, 15, 18}

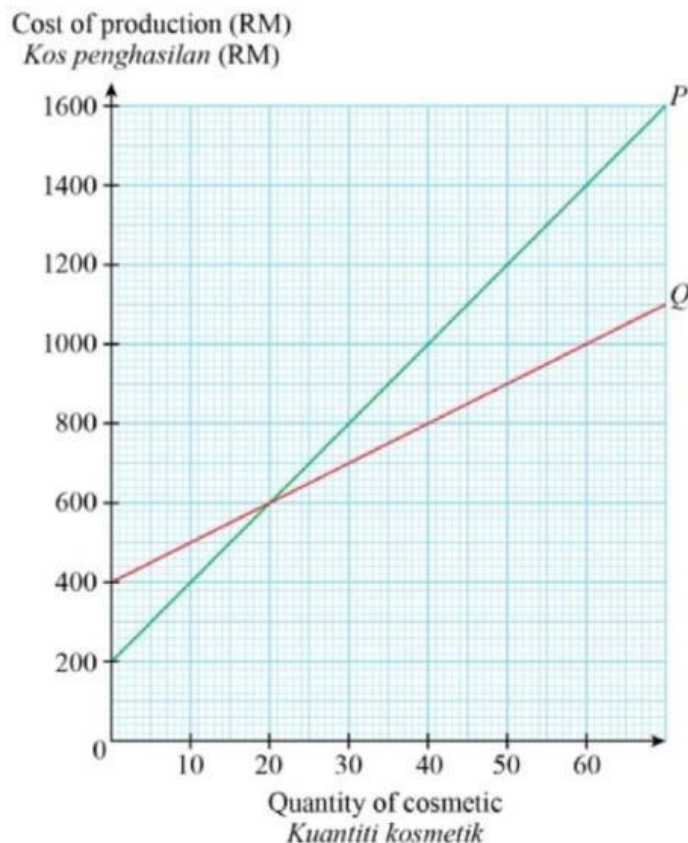
16. Given $y = -2x^2 - 4$, find the value of y when $x = 10$.
Diberi $y = -2x^2 - 4$, cari nilai y apabila $x = 10$.

- ☐ A -204
- ☐ B -196
- ☐ C 204
- ☐ D 196

17. Which point lies on the graph of function $y = 3x^2 - 2$?
Titik manakah yang terletak pada graf bagi fungsi $y = 3x^2 - 2$?

- ☐ A (1, 1)
☐ B (2, 12)
☐ C (-2, 9)
☐ D (-1, 2)

18. A factory produces two types of cosmetic, P and Q. The graph shows the quantity of the cosmetic produced and the cost of production.
Sebuah kilang kosmetik menghasilkan dua jenis kosmetik, P dan Q. Graf di bawah menunjukkan bilangan kosmetik yang dihasilkan dan kos penghasilannya.



What is the difference in the cost of production between the two types of cosmetic when 40 units of each type are produced?

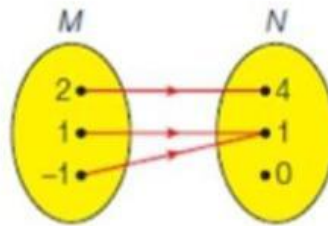
Berapakah beza dalam kos penghasilan antara dua jenis kosmetik itu apabila 40 unit bagi setiap jenis dihasilkan?

- ☐ A RM200
☐ B RM500
☐ C RM800
☐ D RM1 000

19. Given that $a = 49 - 4b^2$ and $b = -4$, then $a =$
Diberi $a = 49 - 4b^2$ dan $b = -4$, maka $a =$

- ☐ A -76
☐ B -15
☐ C 15
☐ D 76

20. The diagram shows the relation between set M and set N .
Rajah di bawah menunjukkan hubungan antara set M dan set N .



What is the range?
Apakah julat itu?

- ☐ A {1}
- ☐ B {0, 1}
- ☐ C {1, 4}
- ☐ D {0, 1, 4}