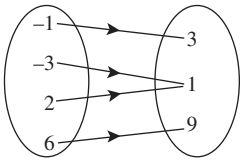
# Jawapan

## Praktis 8

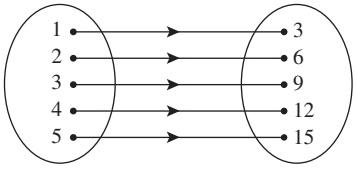
### Praktis Formatif

**1**




Jawapan/*Answer*: **C**

**2** (a)




(b) Satu/*One*, satu/*one*

(c) (i) {1, 2, 3, 4, 5}

(ii) {3, 6, 9, 12, 15}

**3** (a) Hubungan antara set *A* dengan set *B* adalah bukan suatu fungsi.
*The relation between set A and set B is not a function.*

(b) Unsur 9 dalam set *A* mempunyai dua unsur 8 dan 10 dalam set *B*.
*Element* 9 *in set A has two elements* 8 *and* 10 *in set B.*

**4** (a) Fungsi, setiap nilai *x* mempunyai hanya satu nilai *y*.
*A function, each value of x has only one value of y.*

(b) Bukan fungsi, 1 mempunyai dua nilai 1 dan 4.
*Not a function,* 1 *has two values* 1 *and* 4.

**5** Ya, setiap nilai *x* mempunyai hanya satu nilai *y*.
*Yes, each value of x has only one value of y.*

**6** (a) {(0, 1), (1, 3), (2, 5), (3, 7)}
Fungsi, setiap nilai *x* mempunyai hanya satu nilai *y*.
*A function, each value of x has only one value of y.*

(b) {(0, 0), (1, 2), (1, −2), (4, 4)}
Bukan fungsi, nilai $x = 1$ mempunyai dua nilai $y = 2$ dan $y = -2$.
*Not a function, the value of* $x = 1$ *has two values of* $y = 2$ *and* $y = -2$.

**7** (a) {(3, 0), (1, 3), (4, 1), (8, 4)}

(b) {(5, 2), (2, 5), (4, 2), (6, 6)}

(c)

| $x$ | −1 | 1 | 3 | 5 |
|---|---|---|---|---|
| $y$ | 6 | 0 | 2 | −3 |

(d)

| $x$ | −2 | 0 | 2 | 4 |
|---|---|---|---|---|
| $y$ | 5 | 1 | 4 | 1 |

Fungsi satu kepada satu. *One-to-one function.*

Fungsi banyak kepada satu. *Many-to-one function.*

**8** (a) Fungsi satu kepada satu
*One-to-one function*

(b) Fungsi banyak kepada satu
*Many-to-one function*

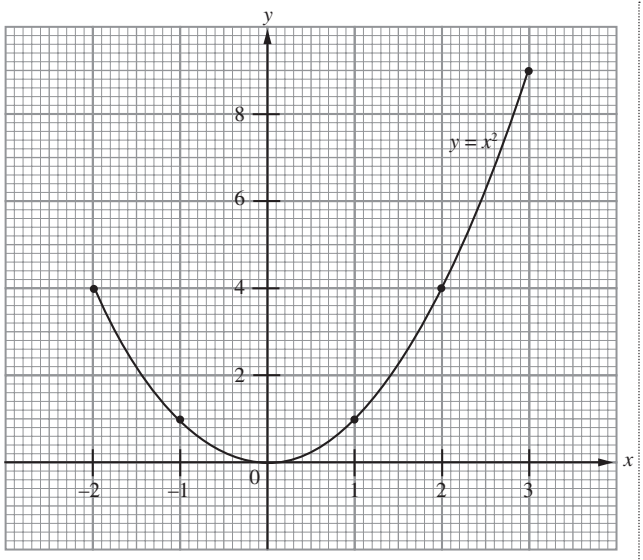
**9** Apabila/*When* $x = -1$,
$y = 3(-1)^2 - 1$
$= 3 - 1$
$= 2$
Apabila/*When* $x = 0$,
$y = 3(0)^2 - 1$
$= 0 - 1$
$= -1$
Apabila/*When* $x = 1$,
$y = 3(1)^2 - 1$
$= 3 - 1$
$= 2$
Jawapan/*Answer*: **B**

**10** (a) $y = 4x + 9$

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

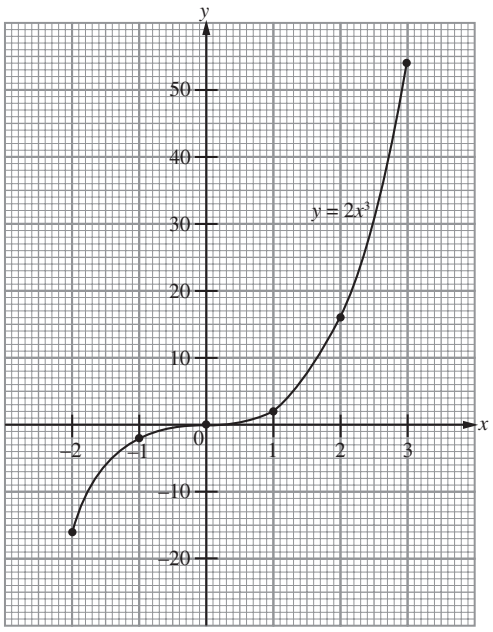
**11** (a)

| $x$ | −2 | −1 | 0 | 1 | 2 | 3 |
|---|---|---|---|---|---|---|
| $y$ | 4 | 1 | 0 | 1 | 4 | 9 |



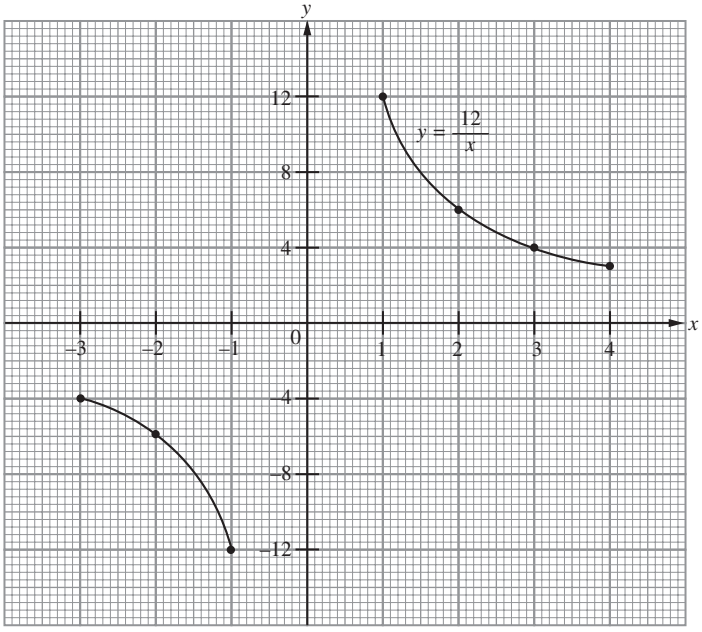

(b)

| $x$ | −2 | −1 | 0 | 1 | 2 | 3 |
|---|---|---|---|---|---|---|
| $y$ | −16 | −2 | 0 | 2 | 16 | 54 |




(c)

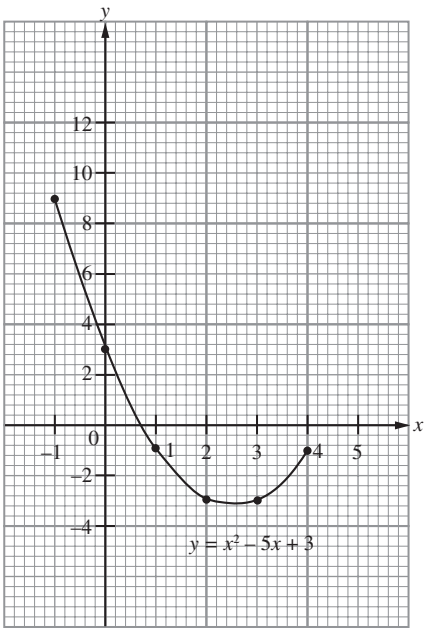
| $x$ | −3 | −2 | −1 | 1 | 2 | 3 | 4 |
|---|---|---|---|---|---|---|---|
| $y$ | −4 | −6 | −12 | 12 | 6 | 4 | 3 |



**12** (a)

| $x$ | −1 | 0 | 1 | 2 | 3 | 4 |
|---|---|---|---|---|---|---|
| $y$ | 9 | 3 | −1 | −3 | −3 | −1 |

(b)




**13** (a) $x = -1$ → $y = 5.2$

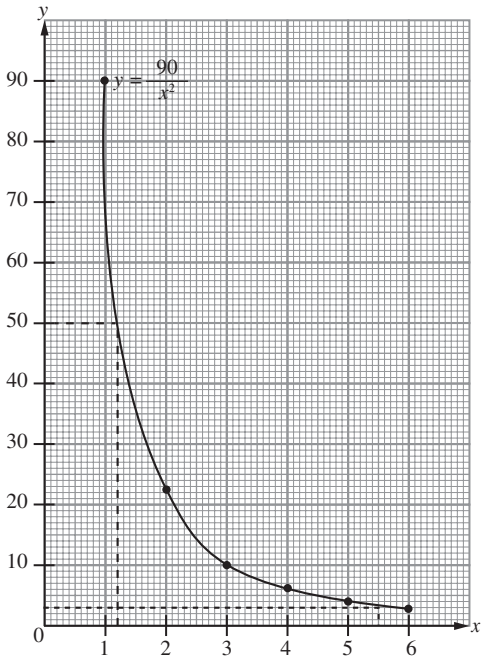
(b) $x = 3$ → $y = 4.8$

(c) $x = 0$ → $y = 2$

**14** (a)

| $x$ | 2 | 3 | 5 | 6 |
|---|---|---|---|---|
| $y$ | 22.5 | 10 | 3.6 | 2.5 |

(b)

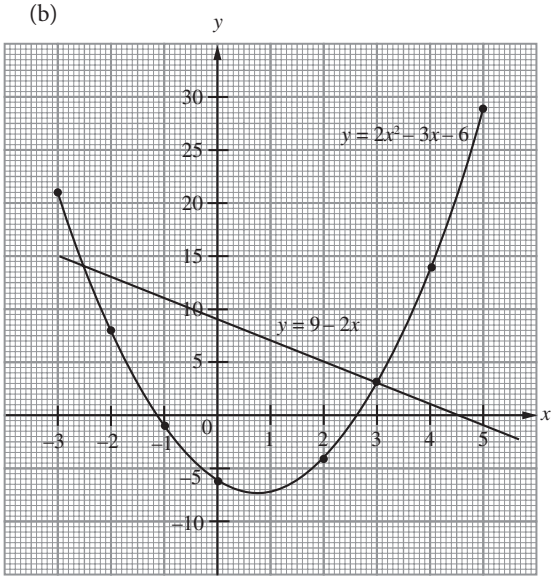



(c) (i) 3 (ii) 1.2

**15** (a)

| $x$ | −2 | −1 | 2 | 3 |
|---|---|---|---|---|
| $y$ | 8 | −1 | −4 | 3 |

(b)




(c) $y = 2x^2 - 3x - 6$…….. ①
$2x^2 - x - 15 = 0$…….. ②
Daripada/*From* ②,
$2x^2 = x + 15$
$y = (x + 15) - 3x - 6$
$y = 9 - 2x$
$x = -2.5, x = 3$

## Praktis Sumatif

**1** Apabila/*When* $x = -3$,
$y = (-3)^2 - 5(-3) + 9$
$= 9 + 15 + 9$
$= 33$
Jawapan/*Answer*: **D**

**2** A $y = 3 - 2x^2$
Apabila/*When* $x = -1$,
$y = 3 - 2(-1)^2$
$= 3 - 2$
$= 1$
Apabila/*When* $x = 0$,
$y = 3 - 2(0)^2$
$= 3 - 0$
$= 3$
Apabila/*When* $x = 1$,
$y = 3 - 2(1)^2$
$= 3 - 2$
$= 1$

Apabila/*When* $x = 2$,
$y = 3 - 2(2)^2$
$= 3 - 8$
$= -5$
Apabila/*When* $x = 3$,
$y = 3 - 2(3)^2$
$= 3 - 18$
$= -15$

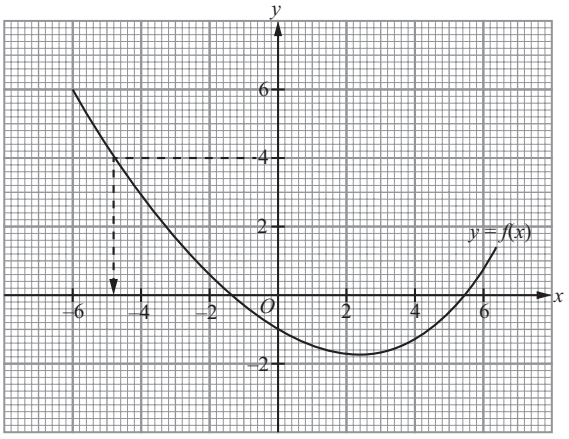
B $y = 3 + x - x^2$
Apabila/*When* $x = -1$,
$y = 3 + (-1) - (-1)^2$
$= 3 - 1 - 1$
$= 1$
Apabila/*When* $x = 0$,
$y = 3 + 0 - 0^2$
$= 3$
Apabila/*When* $x = 1$,
$y = 3 + 1 - 1^2$
$= 3 + 1 - 1$
$= 3$
$\neq 1$

C $y = 2x^2 - 4x + 3$
Apabila/*When* $x = -1$,
$y = 2(-1)^2 - 4(-1) + 3$
$= 2 + 4 + 3$
$= 9$
$\neq 1$

D $y = 3 + 2x - 4x^2$
Apabila/*When* $x = -1$,
$y = 3 + 2(-1) - 4(-1)^2$
$= 3 - 2 - 4$
$= -3$
$\neq 1$

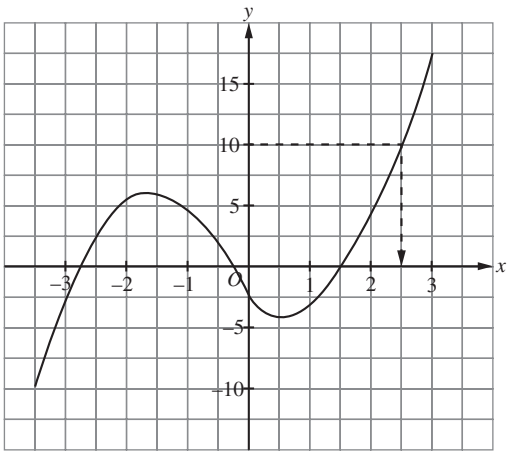
Jawapan/*Answer*: **A**

**3**




Apabila/*When* $y = 4$, $k = -4.8$
Jawapan/*Answer*: **A**

**4**




Apabila/*When* $y = 10$, $x = 2.5$
Jawapan/*Answer*: **D**

**5** (a) Fungsi, setiap nilai $x$ mempunyai hanya satu nilai $y$.
*A function, each value of x has only one value of y.*

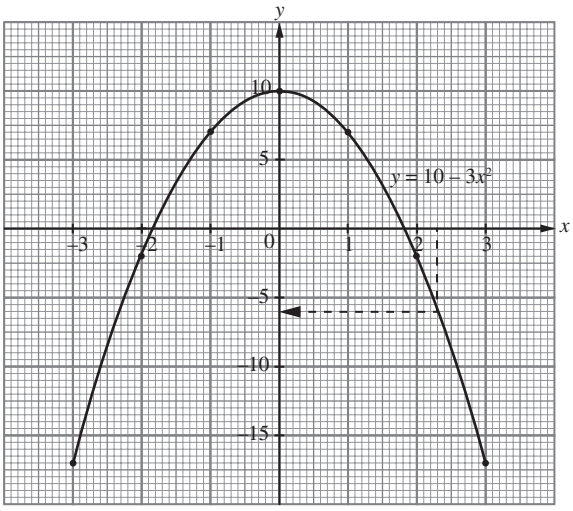
(b) Bukan fungsi, 3 ialah nombor perdana dan nombor ganjil.
*Not a function, 3 is a prime number and an odd number.*

(c) Fungsi, setiap nilai $x$ mempunyai hanya satu nilai $y$.
*A function, each value of x has only one value of y.*

**6** (a)

| $x$ | −3 | −2 | −1 | 0 | 1 | 2 | 3 |
|---|---|---|---|---|---|---|---|
| $y$ | −17 | −2 | 7 | 10 | 7 | −2 | −17 |

(b)



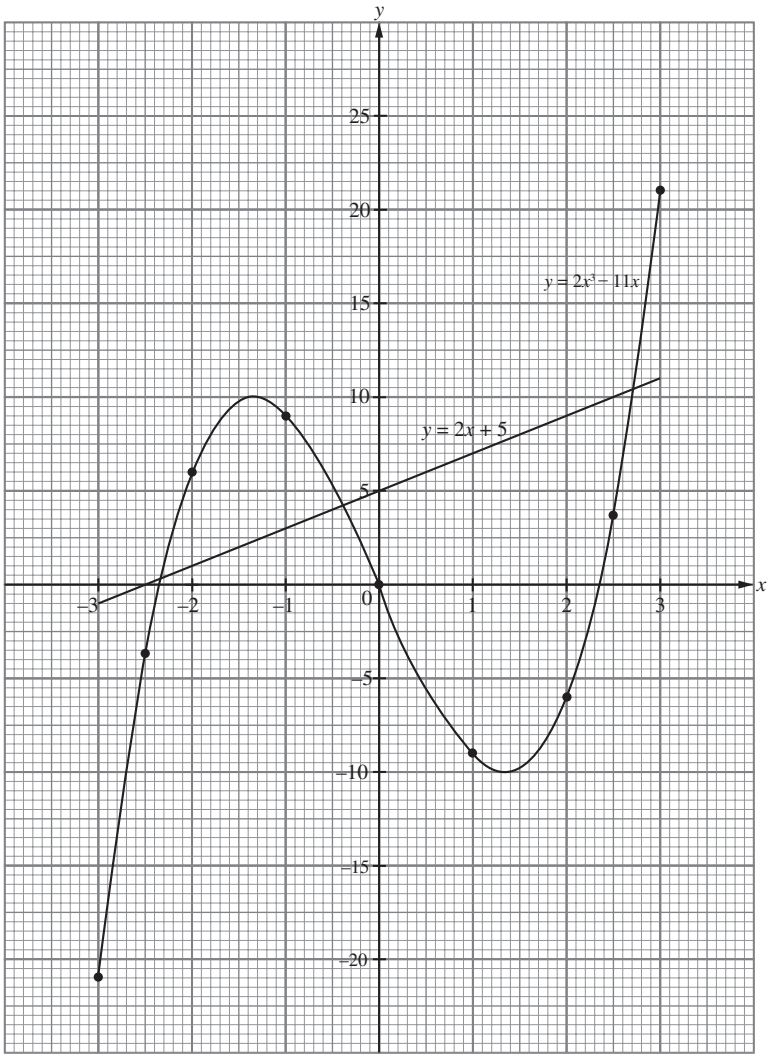

(c) Daripada graf, apabila $x = 2.3$, $y = -6$,
*From graph, when* $x = 2.3$, $y = -6$,

$y = 10 - 3x^2$
$-6 = 10 - 3(2.3^2)$
$3(2.3^2) = 16$
$2.3^2 = \frac{16}{3}$

7 (a)

| $x$ | −3 | −2.5 | −2 | −1 | 0 | 1 | 2 | 2.5 | 3 |
|---|---|---|---|---|---|---|---|---|---|
| $y$ | −21 | −3.75 | 6 | 9 | 0 | −9 | −6 | 3.75 | 21 |

(b)




(c) $y = 2x^3 - 11x$

$2x^3 = y + 11x$

$2x^3 - 13x = 5$

$y + 11x - 13x = 5$

$y = 2x + 5$

Daripada graf, $x = -2.35, -0.35, 2.7$.

*From graph,* $x = -2.35, -0.35, 2.7$.