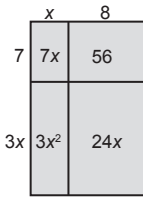


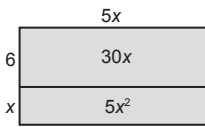


1. (a)



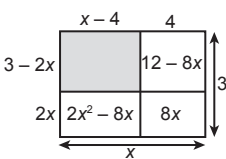
$$\begin{aligned} &= (7 + 3x)(x + 8) \\ &= 7x + 56 + 3x^2 + 24x \\ &= 3x^2 + 31x + 56 \end{aligned}$$

(b)



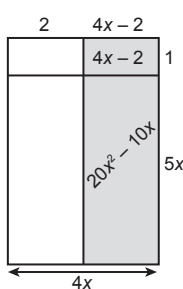
$$\begin{aligned} &= (6 + x)(5x) \\ &= 30x + 5x^2 \end{aligned}$$

(c)



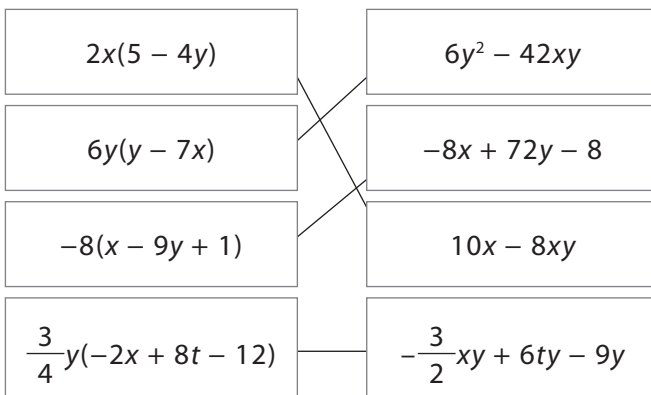
$$\begin{aligned} &= (3 - 2x)(x - 4) \\ &= 3x - (2x^2 - 8x) - (12 - 8x) - 8x \\ &= 3x - 2x^2 + 8x - 12 + 8x - 8x \\ &= -2x^2 + 11x - 12 \end{aligned}$$

(d)



$$\begin{aligned} &= (1 + 5x)(4x - 2) \\ &= 4x - 2 + 20x^2 - 10x \\ &= 20x^2 - 6x - 2 \end{aligned}$$

2.



3. (a)

$$\begin{aligned} &(x - y)(8 - y) \\ &= x(8) + x(-y) + (-y)(8) + (-y)(-y) \\ &= 8x - xy - 8y + y^2 \end{aligned}$$

(b) $(m - 3n)(m + n)$

$$\begin{aligned} &= m(m) + m(n) + (-3n)(m) + (-3n)(n) \\ &= m^2 + mn - 3mn - 3n^2 \\ &= m^2 - 2mn - 3n^2 \end{aligned}$$

(c) $(4 - 3d)(6e - 7)$

$$\begin{aligned} &= 4(6e) + 4(-7) + (-3d)(6e) + (-3d)(-7) \\ &= 24e - 28 - 18de + 21d \end{aligned}$$

(d) $(5 + 6x)(2 + x)$

$$\begin{aligned} &= 5(2) + 5(x) + 6x(2) + 6x(x) \\ &= 10 + 5x + 12x + 6x^2 \\ &= 10 + 17x + 6x^2 \end{aligned}$$

(e) $(5r - 2)(8r - 1)$

$$\begin{aligned} &= 5r(8r) + 5r(-1) + (-2)(8r) + (-2)(-1) \\ &= 40r^2 - 5r - 16r + 2 \\ &= 40r^2 - 21r + 2 \end{aligned}$$

(f) $(-3t + 2u)(t - 4u)$

$$\begin{aligned} &= -3t(t) + (-3t)(-4u) + 2u(t) + 2u(-4u) \\ &= -3t^2 + 12tu + 2tu - 8u^2 \\ &= -3t^2 + 14tu - 8u^2 \end{aligned}$$

(g) $(-4j - k)(5j - 2k)$

$$\begin{aligned} &= -4j(5j) + (-4j)(-2k) + (-k)(5j) + (-k)(-2k) \\ &= -20j^2 + 8jk - 5jk + 2k^2 \\ &= -20j^2 + 3jk + 2k^2 \end{aligned}$$

(h) $(-2r - 3s)(-9r - 5s)$

$$\begin{aligned} &= -2r(-9r) + (-2r)(-5s) + (-3s)(-9r) + (-3s)(-5s) \\ &= 18r^2 + 10rs + 27rs + 15s^2 \\ &= 18r^2 + 37rs + 15s^2 \end{aligned}$$

4. (a) $(k + 6)^2$

$$\begin{aligned} &= k^2 + 2(k)(6) + 6^2 \\ &= k^2 + 12k + 36 \end{aligned}$$

(b) $(5p + 2q)^2$

$$\begin{aligned} &= (5p)^2 + 2(5p)(2q) + (2q)^2 \\ &= 25p^2 + 20pq + 4q^2 \end{aligned}$$

(c) $(3 - 4n)^2$

$$\begin{aligned} &= 3^2 - 2(3)(4n) + (4n)^2 \\ &= 9 - 24n + 16n^2 \end{aligned}$$

(d) $(7r - 3)^2$

$$\begin{aligned} &= (7r)^2 - 2(7r)(3) + 3^2 \\ &= 49r^2 - 42r + 9 \end{aligned}$$

(e) $(2a + 9)(2a - 9)$

$$\begin{aligned} &= (2a)^2 - 9^2 \\ &= 4a^2 - 81 \end{aligned}$$

(f) $(5p - 3r)(5p + 3r)$

$$\begin{aligned} &= (5p)^2 - (3r)^2 \\ &= 25p^2 - 9r^2 \end{aligned}$$

5. (a) $(a + b)(a - b) - a(a - 2b)$
 $= a^2 - b^2 - a^2 + 2ab$
 $= -b^2 + 2ab$
- (b) $(3r + s)^2 + s(r + 3s)$
 $= 9r^2 + 6rs + s^2 + rs + 3s^2$
 $= 9r^2 + 7rs + 4s^2$
- (c) $a + b + 8(a + b)$
 $= a + b + 8a + 8b$
 $= 9a + 9b$
- (d) $(5 - 4n)^2 + 2(1 - n)$
 $= 25 - 40n + 16n^2 + 2 - 2n$
 $= 27 - 42n + 16n^2$
- (e) $(g + 3h)^2 + (3g + 4h)(4g - 3h)$
 $= g^2 + 6gh + 9h^2 + 12g^2 - 9gh + 16gh - 12h^2$
 $= 13g^2 + 13gh - 3h^2$
- (f) $(3p - 2)^2 - p(5p - 1)$
 $= 9p^2 - 12p + 4 - 5p^2 + p$
 $= 4p^2 - 11p + 4$
- (g) $-x(x + 3y) - (x + y)^2$
 $= -x^2 - 3xy - (x^2 + 2xy + y^2)$
 $= -x^2 - 3xy - x^2 - 2xy - y^2$
 $= -2x^2 - 5xy - y^2$
- (h) $\frac{10k(7p + k)}{5} - p(p - 2k)$
 $= 2k(7p + k) - p(p - 2k)$
 $= 14kp + 2k^2 - p^2 + 2kp$
 $= 16kp + 2k^2 - p^2$
6. (a) Baki/ Balance
 $= 5pq - p(q + 1) - q(p + 2)$
 $= 5pq - pq - p - pq - 2q$
 $= 3pq - p - 2q$
 Baki yang diterima/ Balance received
 $= \text{RM}(3pq - p - 2q)$
- (b) Luas / Area (m^2)
 $= (6y + 2)(y)$
 $= 6y^2 + 2y$
- (c) Luas kawasan berlorek
 Area of shaded region
 $= \text{Luas } ABCD - \text{Luas } EFCG$
 Area of ABCD - Area of EFCG
 $= (9x + 4)(5y + 1) - (3x)(2y)$
 $= 45xy + 9x + 20y + 4 - 6xy$
 $= (39xy + 9x + 20y + 4) \text{ cm}^2$
- (d) Luas rangka kayu yang digunakan
 Area of the wooden frame used
 $= 2 \times \text{Luas trapezium} / \text{Area of trapezium}$
 $= 2 \times \left[\frac{1}{2} \times (5x + 8) \times (x + 2) \right]$ Hukum Kalis Sekutuan
Associative Law
 $= 5x^2 + 10x + 8x + 16$
 $= (5x^2 + 18x + 16) \text{ cm}^2$

- (e) (i) Hasil tambah luas jubin

Sum of the area of tiles

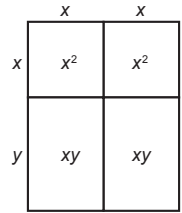
$$= x^2 + x^2 + xy + xy$$

$$= 2x^2 + 2xy$$

$$(x + y)^2 = (x + y) \times (x + y)$$

$$= x^2 + xy + xy + y^2$$

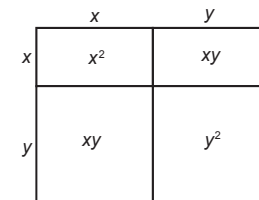
$$= x^2 + 2xy + y^2$$



$(x + y)^2 \neq 2x^2 + 2xy$. Maka, jubin algebra yang dibuat adalah salah.

$(x + y)^2 \neq 2x^2 + 2xy$. Thus, the algebraic tiles made is incorrect.

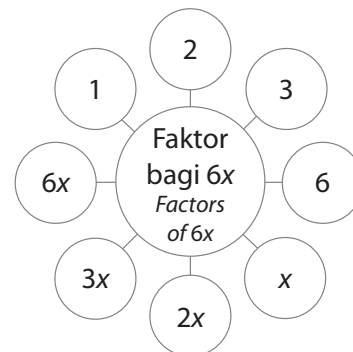
- (ii)



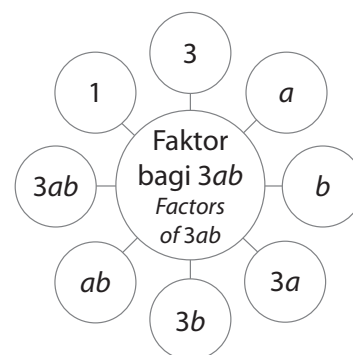
$$(x + y)^2 = x^2 + xy + xy + y^2$$

$$= x^2 + 2xy + y^2$$

7. (a)



- (b)



8. (a) $8y = 1 \times 8y$ $8y^2 = 1 \times 8y^2$
 $2 \times 4y$ $2 \times 4y^2$
 $4 \times 2y$ $4 \times 2y^2$
 $8 \times y$ $8 \times y^2$
 $y \times 8y$
 $2y \times 4y$

Faktor sepunya/ Common factors:

1, 2, 4, 8, y, 2y, 4y dan/ and 8y

(b) $15ef = 1 \times 3 \times 5 \times e \times f$

$$9df = 1 \times 3 \times 3 \times d \times f$$

$$30f^2 = 1 \times 2 \times 3 \times 5 \times f \times f$$

Faktor sepunya/ Common factors:

1, 3 dan/ and f



9. (a) $14p, 28pq$

$$\begin{array}{r|l} 14 & 14p, 28pq \\ p & p, 2pq \\ \hline & 1, 2q \end{array}$$

FSTB/ HCF = $14p$

(b) $5k^2lm, 25kl^2m$

$$\begin{array}{r|l} 5 & 5k^2lm, 25kl^2m \\ k & k^2lm, 5kl^2m \\ l & klm, 5l^2m \\ m & km, 5lm \\ \hline & k, 5l \end{array}$$

FSTB/ HCF = $5klm$

10. (a) $14m + 21m^2$

$$\begin{array}{r|l} 7 & 14m + 21m^2 \\ m & 2m + 3m^2 \\ \hline & 2 + 3m \end{array}$$

FSTB/ HCF = $7m$

Maka / Thus, $7m(2 + 3m)$

(b) $16y^2 - 64y$

$$\begin{array}{r|l} 16 & 16y^2 - 64y \\ y & y^2 - 4y \\ \hline & y - 4 \end{array}$$

FSTB/ HCF = $16y$

Maka / Thus, $16y(y - 4)$

(c) $15p^2q - 21pq^2$

$$\begin{array}{r|l} 3 & 15p^2q - 21pq^2 \\ p & 5p^2q - 7pq^2 \\ q & 5pq - 7q^2 \\ \hline & 5p - 7q \end{array}$$

FSTB/ HCF = $3pq$

Maka / Thus, $3pq(5p - 7q)$

(d) $81x^2 - 100$

$= (9x)^2 - 10^2$

$= (9x + 10)(9x - 10)$

(e) $25a^2 - 36$

$= (5a)^2 - 6^2$

$= (5a + 6)(5a - 6)$

(f) $169u^2 - 225$

$= (13u)^2 - 15^2$

$= (13u + 15)(13u - 15)$

(g) $16z^2 - 100$

$= 4(4z^2 - 25)$

$= 4[(2z)^2 - 5^2]$

$= 4(2z + 5)(2z - 5)$

(h) $27m^2 - 75$

$= 3(9m^2 - 25)$

$= 3[(3m)^2 - 5^2]$

$= 3(3m + 5)(3m - 5)$

(i) $243g^3 - 48g$

$= 3g(81g^2 - 16)$

$= 3g[(9g)^2 - 4^2]$

$= 3g(9g + 4)(9g - 4)$

11. (a) $p^2 - 4p - 12$

$= (p + 2)(p - 6)$

$$\begin{array}{r|l} (x) & \begin{array}{l} p \quad +2 \\ p \quad -6 \end{array} & \begin{array}{l} +2p \\ -6p \end{array} (+) \\ \hline & p^2 & -12 & -4p \end{array}$$

(b) $6m^2 - m - 2$

$= (3m - 2)(2m + 1)$

$$\begin{array}{r|l} (x) & \begin{array}{l} 3m \quad -2 \\ 2m \quad +1 \end{array} & \begin{array}{l} -4m \\ +3m \end{array} (+) \\ \hline & 6m^2 & -2 & -m \end{array}$$

(c) $-6x^2 - 7x + 5$

$= (-3x - 5)(2x - 1)$

$$\begin{array}{r|l} (x) & \begin{array}{l} -3x \quad -5 \\ 2x \quad -1 \end{array} & \begin{array}{l} -10x \\ +3x \end{array} (+) \\ \hline & -6x^2 & +5 & -7x \end{array}$$

(d) $k^2 - 12k + 36$

$= (k - 6)^2$

$$\begin{array}{r|l} (x) & \begin{array}{l} k \quad -6 \\ k \quad -6 \end{array} & \begin{array}{l} -6k \\ -6k \end{array} (+) \\ \hline & k^2 & +36 & -12k \end{array}$$

(e) $8t^2 + 29t - 12$

$= (8t - 3)(t + 4)$

$$\begin{array}{r|l} (x) & \begin{array}{l} 8t \quad -3 \\ t \quad +4 \end{array} & \begin{array}{l} -3t \\ +32t \end{array} (+) \\ \hline & 8t^2 & -12 & 29t \end{array}$$

(f) $ab + ac + bd + cd$

$= (ab + ac) + (bd + cd)$

$= a(b + c) + d(b + c)$

$= (b + c)(a + d)$

(g) $pq - p^2 + 3q - 3p$

$= (pq - p^2) + (3q - 3p)$

$= p(q - p) + 3(q - p)$

$= (q - p)(p + 3)$

(h) $bm - bn + cm - cn$

$= (bm - bn) + (cm - cn)$

$= b(m - n) + c(m - n)$

$= (m - n)(b + c)$

$$\begin{aligned} \text{(i)} \quad & wp - hp - wq + hq \\ &= (wp - hp) - (wq - hq) \\ &= p(w - h) - q(w - h) \\ &= (w - h)(p - q) \end{aligned}$$

$$\begin{aligned} \text{(j)} \quad & 3h^2 + 12h - 2hk - 8k \\ &= (3h^2 + 12h) - (2hk + 8k) \\ &= 3h(h + 4) - 2k(h + 4) \\ &= (h + 4)(3h - 2k) \end{aligned}$$

12. (a) $4x^2 - 12x + 9$
 $= (2x - 3)(2x - 3)$
 Panjang sisi padang = $(2x - 3)$ m
Side length of field

$$\begin{aligned} \text{Perimeter} &= 4(2x - 3) \\ &= (8x - 12) \text{ m} \end{aligned}$$

(b) $n^2 - 1 = (n + 1)(n - 1)$

Beza umur
Difference in ages
 $= n + 1 - (n - 1)$
 $= n + 1 - n + 1$
 $= 2$

(c)

Buah/ Fruit	Bilangan buah/ Number of fruits	Harga sebiji/ Price per (RM)	RM
Oren/ Orange	10	y	10y
Epal/ Apple	8	y - 0.1	8(y - 0.1)
Pear/ Pear	5	y + 0.5	5(y + 0.5)

Jumlah bayaran = $10y + 8(y - 0.1) + 5(y + 0.5)$
Total payment $= 10y + 8y - 0.8 + 5y + 2.5$
 $= \text{RM}(23y + 1.7)$

(d) (i) $300xy - 150x + 900y - 450$
 $= 150(2xy - x + 6y - 3)$
 $= 150[x(2y - 1) + 3(2y - 1)]$
 $= 150(x + 3)(2y - 1)$
 Dimensi jubin / *Dimension of a tile*
 $= (x + 3) \text{ m} \times (2y - 1) \text{ m}$

(ii) 150 keping jubin / *tiles*

(e) $(80 - 1)(80 + 1) = 80^2 - 1^2$
 $= 6\,400 - 1$
 $= 6\,399$

13. (a) $(h + k)(h - k) - (h^2 + k^2)$
 $= h^2 - k^2 - h^2 - k^2$
 $= -2k^2$

(b) $(p + q)^2 + (2p + 3q)(3p - 2q)$
 $= p^2 + 2pq + q^2 + 6p^2 - 4pq + 9pq - 6q^2$
 $= 7p^2 + 7pq - 5q^2$

(c) $\frac{3p + 2q}{p - 2q} - \frac{p - 5q}{p - 2q}$
 $= \frac{3p + 2q - p + 5q}{p - 2q}$

$$= \frac{2p + 7q}{p - 2q}$$

(d) $\frac{4m - 3n}{2m + 3n} + \frac{3m + 4n}{2m + 3n}$
 $= \frac{4m - 3n + 3m + 4n}{2m + 3n}$
 $= \frac{7m + n}{2m + 3n}$

(e) $\frac{3n}{12m^2} + \frac{5n}{4m^2}$
 $= \frac{3n}{12m^2} + \frac{5n \times 3}{4m^2 \times 3}$
 $= \frac{3n + 15n}{12m^2}$
 $= \frac{18n}{12m^2}$
 $= \frac{3n}{2m^2}$

(f) $\frac{3h^2}{2k} - \frac{7h^2}{10k}$
 $= \frac{3h^2 \times 5}{2k \times 5} - \frac{7h^2}{10k}$
 $= \frac{15h^2 - 7h^2}{10k}$
 $= \frac{8h^2}{10k}$
 $= \frac{4h^2}{5k}$

(g) $\frac{c}{5d} - \frac{3}{4c}$
 $= \frac{c \times 4c}{5d \times 4c} - \frac{3 \times 5d}{4c \times 5d}$
 $= \frac{4c^2 - 15d}{20cd}$

(h) $\frac{1}{7z} + \frac{5}{6z}$
 $= \frac{1 \times 6}{7z \times 6} + \frac{5 \times 7}{6z \times 7}$
 $= \frac{6 + 35}{42z}$
 $= \frac{41}{42z}$

(i) $\frac{p}{6q} - \frac{3p}{10qr}$
 $= \frac{p \times 5r}{6q \times 5r} - \frac{3p \times 3}{10qr \times 3}$
 $= \frac{5pr - 9p}{30qr}$



$$\begin{aligned} \text{(j)} \quad & \frac{3}{2mn} + \frac{n}{6m^2} \\ &= \frac{3 \times 3m}{2mn \times 3m} + \frac{n \times n}{6m^2 \times n} \\ &= \frac{9m + n^2}{6m^2n} \end{aligned}$$

$$\begin{aligned} \text{14. (a)} \quad & \frac{3m}{m^2 - 9} \times \frac{m^2 + m - 6}{6m^2} \\ &= \frac{3m}{(m-3)(m+3)} \times \frac{(m-2)(m+3)}{6m^2} \\ &= \frac{(m-2)}{2m(m-3)} \end{aligned}$$

$$\begin{aligned} \text{(b)} \quad & \frac{p^2 + p}{2pq + 4p} \times \frac{q + 2}{3p + 3} \\ &= \frac{p(p+1)}{2p(q+2)} \times \frac{q+2}{3(p+1)} \\ &= \frac{1}{6} \end{aligned}$$

$$\begin{aligned} \text{(c)} \quad & \frac{3q - 1}{3q - 21} \div \frac{q - 5}{4q - 28} \\ &= \frac{3q - 1}{3(q-7)} \times \frac{4(q-7)}{q - 5} \\ &= \frac{4(3q - 1)}{3(q - 5)} \end{aligned}$$

$$\begin{aligned} \text{(d)} \quad & \frac{(y + 3)^2}{16 - x^2} \div \frac{3y + 9}{8 - 2x} \\ &= \frac{(y + 3)^2}{4^2 - x^2} \times \frac{8 - 2x}{3y + 9} \\ &= \frac{(y + 3)(y + 3)}{(4 + x)(4 - x)} \times \frac{2(4 - x)}{3(y + 3)} \\ &= \frac{2(y + 3)}{3(4 + x)} \end{aligned}$$

$$\begin{aligned} \text{15. (a)} \quad & 4(p - q)^2 \times 6(p + q) \div 12(p^2 - q^2) \\ &= \frac{4(p - q)^2 \times 6(p + q)}{12(p^2 - q^2)} \\ &= \frac{4(p - q)(p - q) \times 6(p + q)}{12(p - q)(p + q)} \\ &= 2(p - q) \end{aligned}$$

$$\begin{aligned} \text{(b)} \quad & (m^2 + 2m + 1) \div (m^2 - 1) - \frac{2}{m + 1} \\ &= \frac{m^2 + 2m + 1}{m^2 - 1} - \frac{2}{m + 1} \\ &= \frac{m^2 + 2m + 1}{(m + 1)(m - 1)} - \frac{2(m - 1)}{(m + 1)(m - 1)} \\ &= \frac{m^2 + 2m + 1 - 2m + 2}{m^2 - 1} \\ &= \frac{m^2 + 3}{m^2 - 1} \end{aligned}$$

$$\begin{aligned} \text{(c)} \quad & \frac{2px + qx + 2py + qy}{10x + 10y} \div \frac{8p + 4q}{x^2 - y^2} \\ &= \frac{x(2p + q) + y(2p + q)}{10(x + y)} \times \frac{(x + y)(x - y)}{4(2p + q)} \\ &= \frac{(x + y)(2p + q)}{10(x + y)} \times \frac{(x + y)(x - y)}{4(2p + q)} \\ &= \frac{(x + y)(x - y)}{40} \\ &= \frac{x^2 - y^2}{40} \end{aligned}$$

Praktis Masteri 2

BAHAGIAN A

$$\begin{aligned} \text{1.} \quad & -a(2b + 7) \\ &= -a(2b) + (-a)(7) \\ &= -2ab - 7a \end{aligned}$$

Jawapan / Answer: **D**

$$\begin{aligned} \text{2.} \quad & (3 - 4x)(8y - 2z) \\ &= 3(8y) + 3(-2z) + (-4x)(8y) + (-4x)(-2z) \\ &= 24y - 6z - 32xy + 8xz \\ &= -32xy - 6z + 24y + 8xz \end{aligned}$$

Jawapan / Answer: **C**

$$\begin{aligned} \text{3.} \quad & (5k + 1)^2 - 3(2 - 4k) \\ &= 25k^2 + 10k + 1 - 6 + 12k \\ &= 25k^2 + 22k - 5 \end{aligned}$$

Jawapan / Answer: **C**

4. $5a^2 + 15a - 50$
 $= 5(a^2 + 3a - 10)$
 $= 5(a - 2)(a + 5)$

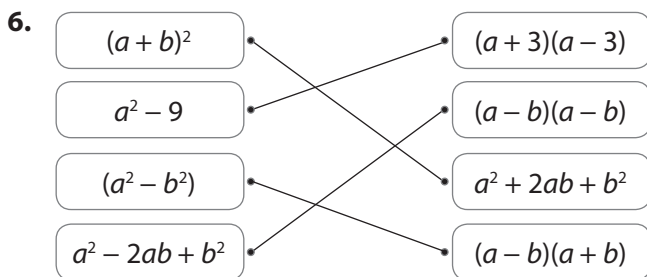
$$\begin{array}{r|l} a & -2 \\ \times a & +5 \\ \hline a^2 & -10 \end{array} \quad \begin{array}{l} -2a \\ 5a \end{array} \quad \begin{array}{l} (+) \\ (+) \end{array}$$

Jawapan / Answer: **B**

5. Luas / Area
 $= (3x - 1)(2x + 5)$
 $= 3x(2x) + 3x(5) + (-1)(2x) + (-1)(5)$
 $= 6x^2 + 15x - 2x - 5$
 $= 6x^2 + 13x - 5$

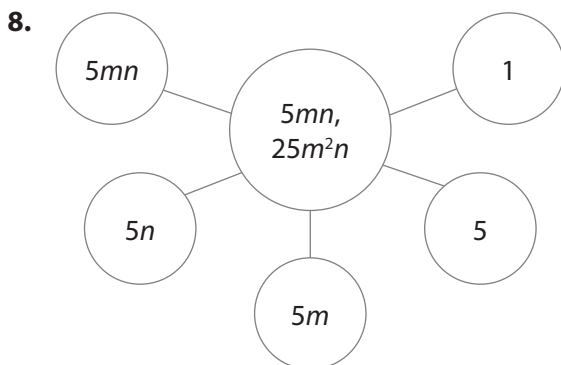
Jawapan / Answer: **C**

BAHAGIAN B



7.

$(p - q)(p + q) = p^2 + q^2$	Betul True	Salah False
$(p + q)(p - q) = p^2 - q^2$	Betul True	Salah False
$p^2 - 2pq + q^2 = (p + q)^2$	Betul True	Salah False
$p^2 + 2pq + q^2 = (p + q)^2$	Betul True	Salah False



BAHAGIAN C

9. (a) $4a^2 - 4a - 48$
 $= 4(a^2 - a - 12)$
 $= 4(a - 4)(a + 3)$

(b) (i) $36 - 4g^2$
 $= 6^2 - (2g)^2$
 $= (6 + 2g)(6 - 2g)$

(ii) $35ts - 14tr - 15ts + 6tr$
 $= 7t(5s - 2r) - 3t(5s - 2r)$
 $= (5s - 2r)(7t - 3t)$
 $= 4t(5s - 2r)$

(c) $\frac{(m - 3)}{3m} - \frac{(n - 5)}{7n}$
 $= \frac{(m - 3) \times 7n}{3m \times 7n} - \frac{(n - 5) \times 3m}{7n \times 3m}$
 $= \frac{7mn - 21n}{21mn} - \frac{3mn - 15m}{21mn}$
 $= \frac{7mn - 21n - 3mn + 15m}{21mn}$
 $= \frac{4mn - 21n + 15m}{21mn}$

10. (a) (i) $\left(m + \frac{1}{3}\right)^2 - \frac{3}{5}m$
 $= \left(m + \frac{1}{3}\right)\left(m + \frac{1}{3}\right) - \frac{3}{5}m$
 $= m^2 + \frac{2}{3}m + \frac{1}{9} - \frac{3}{5}m$
 $= m^2 + \frac{1}{15}m + \frac{1}{9}$

(ii) $\frac{5k^2 + 20k + 20}{k^2 - 4} \div \frac{(k + 2)^2}{2(k - 2)}$
 $= \frac{5(k^2 + 4k + 4)}{(k + 2)(k - 2)} \times \frac{2(k - 2)}{(k + 2)(k + 2)}$
 $= \frac{5(k + 2)(k + 2)}{(k + 2)(k - 2)} \times \frac{2(k - 2)}{(k + 2)(k + 2)}$
 $= \frac{5}{1} \times \frac{2}{k + 2}$
 $= \frac{10}{k + 2}$

(b) $(3 - p)(7 + p)$
 $= 21 + 3p - 7p - p^2$
 $= 21 - 4p - p^2$

(c) Harga ketuhar (RM)
Price of the oven (RM)
 $= \frac{4}{2h - 1} \times (4h^2 - 1)$
 $= \frac{4}{2h - 1} \times (2h - 1)(2h + 1)$
 $= 4(2h + 1)$

Harga periuk nasi (RM)

Price of rice cooker (RM)

$$\begin{aligned} &= \frac{h + 1}{4} \times 4(2h + 1) \\ &= (h + 1)(2h + 1) \\ &= 2h^2 + 3h + 1 \end{aligned}$$

Fokus KBAT

(a) Luas ladang lembu/ *Area of the cow farm*

$$= \text{Luas } ABCD - \text{Luas } AFE - \text{Luas } CDE$$

$$\text{Area of } ABCD - \text{Area of } AFE - \text{Area of } CDE$$

$$= (56 \times 48) - \left[\frac{1}{2} \times 2x \times (48 - 2x) \right] - \left[\frac{1}{2} \times 48 \times (56 - 2x) \right]$$

$$= 2\,688 - x(48 - 2x) - 24(56 - 2x)$$

$$= 2\,688 - 48x + 2x^2 - 1\,344 + 48x$$

$$= (2x^2 + 1\,344) \text{ m}^2$$

(b) $EC^2 = ED^2 + DC^2$

$$EC = \sqrt{(56 - 2x)^2 + 48^2}$$

$$= \sqrt{3\,136 - 224x + 4x^2 + 2\,304}$$

$$= \sqrt{4x^2 - 224x + 5\,440}$$

$$= \sqrt{4(x^2 - 56x + 1\,360)}$$

$$= (2\sqrt{x^2 - 56x + 1\,360}) \text{ m}$$

(c) Perimeter $ABCD$ / *Perimeter of ABCD*

$$= 2(56) + 2(48)$$

$$= 208 \text{ m}$$

Bilangan pagar yang diperlukan

Number of fences needed

$$= \frac{208}{\left(\frac{6}{5y} + \frac{1}{2y}\right)}$$

$$= \frac{208}{\left(\frac{6}{5y} + \frac{1}{2y}\right)}$$

$$= \frac{208}{\left(\frac{6 \times 2}{5y \times 2} + \frac{1 \times 5}{2y \times 5}\right)}$$

$$= \frac{208}{\left(\frac{12}{10y} + \frac{5}{10y}\right)}$$

$$= 208 \times \frac{10y}{17}$$

$$= 122\frac{6}{17}y$$