

JAWAPAN

Kertas Model Set 1

Section A / Bahagian A

1. $3 \begin{array}{l} 9x + 15 \\ 3x + 5 \end{array}$
 $9x + 15 = 3(3x + 5)$
 Answer / Jawapan: **C**

2. $10, 15, 20, x, 30, 35, y, 45, \dots$
 $\begin{array}{cccccccc} & +5 & +5 & +5 & +5 & +5 & +5 & +5 \end{array}$
 $x = 25, y = 40$
 $y - x = 40 - 25 = 15$
 Answer / Jawapan: **C**

3. $\frac{1}{4}m^2 + n = p$
 $\frac{1}{4}(-2)^2 + n = -3$
 $\frac{1}{4}(4) + n = -3$
 $1 + n = -3$
 $n = -3 - 1$
 $n = -4$
 Answer / Jawapan: **A**

4. Exterior angle / Sudut luaran
 $= \frac{360^\circ}{8} = 45^\circ$
 $2y = 45^\circ$
 $y = \frac{45^\circ}{2}$
 $= 22.5^\circ$
 Answer / Jawapan: **B**

5. $\frac{60^\circ}{360^\circ} \times 2 \times \frac{22}{7} \times r = 2.2$
 $\frac{22}{21} \times r = 2.2$
 $r = 2.2 \times \frac{21}{22}$
 $r = 2.1 \text{ m}$
 Answer / Jawapan: **C**

6. Answer / Jawapan: **C**

7. $\sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$
 $= \sqrt{(-4 - (-4))^2 + (-4 - 6)^2}$
 $= \sqrt{100}$
 $= 10$
 Answer / Jawapan: **C**

8. Each object has one image only. Therefore, the relation of the function $f(x) = x + 5$ is one-to-one.
 Setiap objek mempunyai satu imej sahaja. Maka, hubungan bagi fungsi $f(x) = x + 5$ ialah satu kepada satu.
 Answer / Jawapan: **A**

9. Acceleration / Pecutan

$$= \frac{75 - 55}{2 + 2} = 5 \text{ km h}^{-1} / \text{km j}^{-1}$$

Answer / Jawapan: **A**

10. $-\frac{y\text{-intercept}}{x\text{-intercept}} = \text{gradient}$

$$-\frac{\text{pintasan-y}}{\text{pintasan-x}} = \text{kecerunan}$$

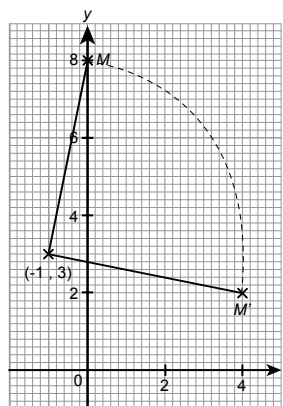
$$-\frac{y}{(-\frac{4}{9})} = -9$$

$$-y = -9 \times (-\frac{4}{9})$$

$$y = -4$$

Answer / Jawapan: **A**

11.



Answer / Jawapan: **A**

12. Mean / Min

$$= \frac{(6 \times 8) + (12 \times 9) + (7 \times 10) + (8 \times 11) + (6 \times 12)}{6 + 12 + 7 + 8 + 6}$$

$$= \frac{386}{39}$$

$$= 9.9$$

Answer / Jawapan: **B**

13. $S = \{3, 4, 5, 6, 7, 8, 9, 10, 11\}$

$A = \text{Factor of 3} / \text{Faktor bagi 3}$

$$= \{3, 6, 9\}$$

$$P(A) = \frac{3}{9} = \frac{1}{3}$$

Answer / Jawapan: **C**

14. $m^{\frac{2}{5}} = (m^2)^{\frac{1}{5}}$
 $= \sqrt[5]{m^2}$

Answer / Jawapan: **B**

15. $\frac{3}{4}h + 5 = 8$

$$\frac{3}{4}h = 8 - 5$$

$$h = 3 \times \frac{4}{3}$$

$$= 4$$

Answer / Jawapan: **C**

$$16. \quad 2p + 4 < \frac{p}{4} - 10$$

$$2p - \frac{p}{4} < -4 - 10$$

$$\frac{7}{4}p < -14$$

$$p < -14 \times \frac{4}{7}$$

$$p < -8$$

Answer / Jawapan: **A**

$$17. \quad 12 \div 4 = 3$$

$$12 \div 8 = \frac{3}{2}$$

Answer / Jawapan: **A**

$$18. \quad \frac{1}{6} + \frac{1}{4} = \frac{5}{12}$$

The balance is / Bakinya ialah

$$= \left(1 - \frac{5}{12}\right) \times \text{RM}480$$

$$= \text{RM}280$$

Answer / Jawapan: **C**

$$19. \quad \angle HGI = 180^\circ - 95^\circ - 23^\circ = 62^\circ$$

$$y = 180^\circ - 62^\circ - 62^\circ$$

$$= 56^\circ$$

Answer / Jawapan: **C**

20. Answer / Jawapan: **D**

Section B / Bahagian B

$$1. \quad e = 6 \quad \checkmark$$

$$c - 4 = 0 \quad \checkmark$$

$$f - 3 = -\frac{1}{2} \quad \checkmark$$

$$d = 5d - 2 \quad \checkmark$$

$$2. \quad (i) = \quad (iii) =$$

$$(ii) \neq \quad (iv) \neq$$

3. (i) Parallelogram / Segi empat selari
 (ii) Trapezium / Trapezium
 (iii) Rhombus / Rombus
 (iv) Rectangle / Segi empat tepat

$$4. \quad (i) \frac{1}{2}ab$$

$$(ii) \frac{1}{2}cd$$

$$(iii) ab$$

$$(iv) \frac{1}{2}(a + b)c$$

$$5. \quad \left(\sqrt[3]{-343} + \sqrt{20\frac{1}{4}}\right)^2 = \left(-7 + \sqrt{\frac{81}{4}}\right)^2$$

$$= \left(-7 + \frac{9}{2}\right)^2$$

$$= \left(-\frac{5}{2}\right)^2$$

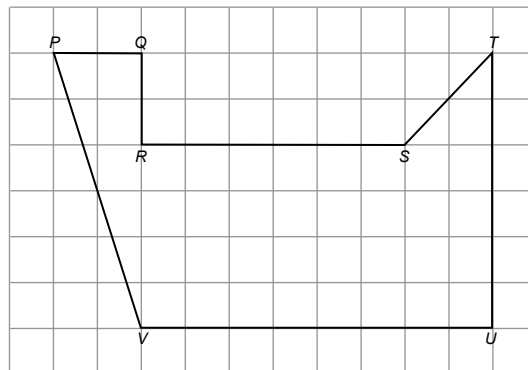
$$= 6\frac{1}{4}$$

Section C / Bahagian C

$$1. \quad (a) \quad (i) \quad UV = \frac{32 \times 100 \times 10}{400}$$

$$= 80 \text{ mm}$$

(ii)



$$(b) \quad \tan 30^\circ = \frac{BD}{10}$$

$$BD = 10 \times \tan 30^\circ$$

$$= 5.774 \text{ cm}$$

$$\sin 40^\circ = \frac{AB}{5.774}$$

$$AB = 5.774 \times \sin 40^\circ$$

$$= 3.71 \text{ cm}$$

(c) Volume of cylinder / Isi padu silinder

$$= 3.142 \times 40^2 \times 70$$

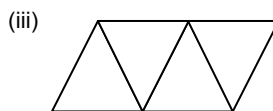
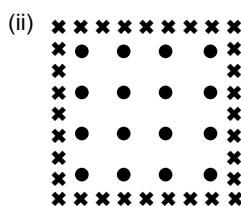
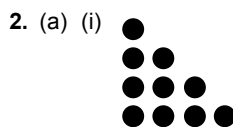
$$= 351\,904 \text{ cm}^3$$

Time / Masa

$$= \frac{351\,904}{10} \div 60 \div 60$$

$$= 9.775 \text{ hours / jam}$$

$$= 9 \text{ hours } 47 \text{ minutes / } 9 \text{ jam } 47 \text{ minit}$$



(b) Surface area of the cuboid / Luas permukaan kuboid

$$= 2(p \times 6q) + 2(8q \times 6q) + (p \times 8q)$$

$$= 12pq + 96q^2 + 8pq$$

$$= 96q^2 + 20pq$$

Surface area of the half cylinder
 Luas permukaan separa silinder

$$= \frac{22}{7} \times (4q)^2 + \frac{1}{2} \times 2 \times \frac{22}{7} \times 4q \times p$$

$$= \frac{352}{7}q^2 + \frac{88}{7}pq$$



The remaining paper / Baki kertas

$$= 8p \times 8q - (96q^2 + 20pq) - \left(\frac{352}{7}q^2 + \frac{88}{7}pq \right)$$

$$= \left(\frac{220}{7}pq - \frac{1024}{7}q^2 \right) \text{ cm}^2$$

(c) $a < b$

6, 8, 9, 9, a , b , 12, 13, 13, 14

Since mode = 9, then $a = 9$.

Oleh kerana mod = 9, maka $a = 9$.

$$\text{Median} = \frac{9 + b}{2} = 10$$

$$9 + b = 20$$

$$b = 11$$

$$a = 9, b = 11$$

3. (a) (i) $h(h - 2) = h^2 - 2h$

(ii) $2(h^2 - 1) = 2h^2 - 2$

(iii) $2h(h - 1) = 2h^2 - 2h$

(b) (i) $20 - 10 = 10 \text{ s}$

(ii) Acceleration / Pecutan

$$= \frac{20 - 2}{9}$$

$$= \frac{18}{9}$$

$$= 2 \text{ m s}^{-2}$$

(iii) Average speed = Distance / Time

= Total area from 9 s to 20 s

/ Time

Purata laju = Jarak / Masa

= Jumlah luas dari 9 s hingga 20 s / Masa

$$7.59 = \frac{\frac{1}{2}(20 + m)(1) + 10(m)}{11}$$

$$83.49 = \frac{1}{2}(20 + m) + 10m$$

$$83.49 = 10 + \frac{1}{2}m + 10m$$

$$83.49 = 10 + \frac{21}{2}m$$

$$\frac{21}{2}m = 73.49$$

$$m = 7$$

4. (a) $\frac{x^2 - 2}{3} = y$

$$x^2 - 2 = 3y$$

$$x^2 = 3y + 2$$

$$x = \sqrt{3y + 2}$$

(b) (i) $m_{AB} = m_{OC} = \frac{8 - 0}{4 - 0}$

$$= 2$$

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

$$c = -10$$

$$y = 2x - 10$$

(ii) For x-intercept / Untuk pintasan-x

$$y = 0$$

$$2x - 10 = 0$$

$$2x = 10$$

$$x = 5$$

(c) $y = \frac{3}{5} \times 80 = 48$

$$x = 80 - 12 - 48 - 10 = 10$$

5. (a) (i) $x^{-y} = 5^{-2}$

$$x = 5, y = 2$$

(ii) $\frac{8a^8b^{-6}}{2^2a^2b^{-10}} = \frac{8}{4}a^{8-2}b^{-6-(-10)}$

$$= 2a^6b^4$$

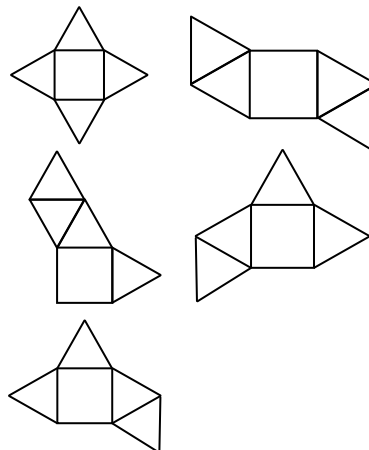
(b) $\left(3\frac{2}{5} - \left(4 \times \left(-\frac{3}{8} \right) \right) + 2\frac{2}{3} \right) \times 100$

$$= \left(3\frac{2}{5} - \frac{3}{2} + 2\frac{2}{3} \right) \times 100$$

$$= 4\frac{17}{30} \text{ m} \times 100$$

$$= 456\frac{2}{3} \text{ cm}$$

(c)



(Accept any three correct answers)

(Terima mana-mana tiga jawapan yang betul)

6. (a) (i) The length of the third part

Panjang bahagian ketiga

$$= r - s - 3s$$

$$= r - 4s$$

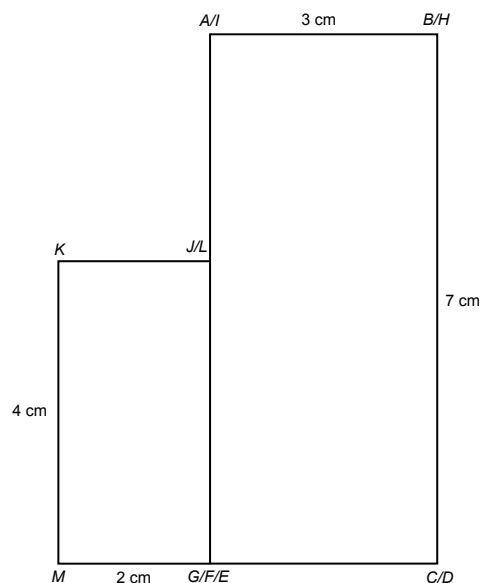
(ii) First part / Bahagian pertama = 5 cm

Second part / Bahagian kedua = $3(5) = 15 \text{ cm}$

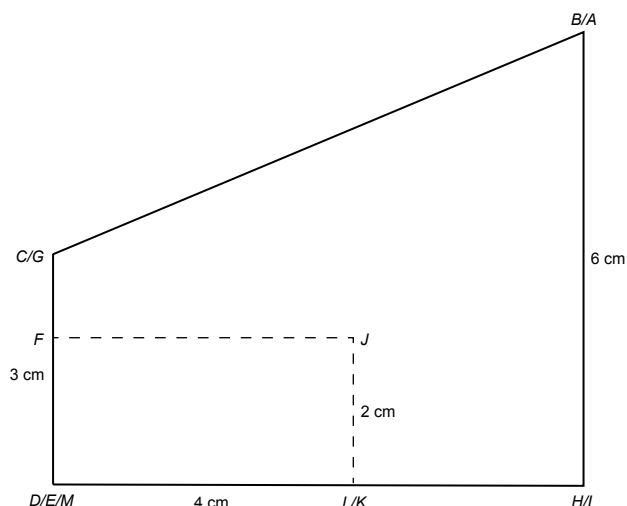
$$\text{Third part / Bahagian ketiga} = \frac{15}{3} = 5 \text{ cm}$$

$$r = 5 + 15 + 5 = 25 \text{ cm}$$

(b) (i)



(ii)



Kertas Model Set 2

Section A / Bahagian A

1. Factors of 36 = 1, 2, 3, 4, 6, 9, 12, 18, 36.

13 is not factor of 36.

Faktor bagi 36 = 1, 2, 3, 4, 6, 9, 12, 18, 36.

13 bukan faktor bagi 36.

Answer / Jawapan: **D**

2. $x^2 + 9 = 18$

$$x^2 = 18 - 9$$

$$x^2 = 9$$

$$x = \sqrt{9}$$

$$x = \pm 3$$

Answer / Jawapan: **A**

3. $(3x + 5y) + (8x - y - 9)$

$$= 3x + 8x + 5y - y - 9$$

$$= 11x + 4y - 9$$

Answer / Jawapan: **C**

4. $(x - y)(5x + 3y) - x(x - y)$

$$= 5x^2 + 3xy - 5xy - 3y^2 - x^2 + xy$$

$$= 4x^2 - xy - 3y^2$$

Answer / Jawapan: **A**

5. 1 Amanah: 1 Barakah: 1 Fathanah = 30 : 35 : 15

Simplify the ratio to 6 : 7 : 3.

Ringkaskan nisbah kepada 6 : 7 : 3.

Answer / Jawapan: **C**

6. $7 - 17 = -10$

$$y = -13 - 10$$

$$= -23$$

Answer / Jawapan: **A**

7. Substitute $w = 5$ and $x = 6$ into the equation

Gantikan $w = 5$ dan $x = 6$ ke dalam persamaan

$$5 = \frac{6 + y}{1 + 6}$$

$$5 = \frac{6 + y}{7}$$

$$6 + y = 35$$

$$y = 29$$

Answer / Jawapan: **D**

8. $\frac{5p + 6}{4p} - \frac{10 - 3p}{8}$

$$= \frac{8(5p + 6) - 4p(10 - 3p)}{32p}$$

$$= \frac{40p + 48 - 40p + 12p^2}{32p}$$

$$= \frac{48 + 12p^2}{32p}$$

$$= \frac{12 + 3p^2}{8p}$$

Answer / Jawapan: **D**

9. Amount of money after 3 years

Jumlah wang selepas 3 tahun

$$= P(1 + r)^n$$

$$= 1\,000 \left(1 + \frac{3}{100}\right)^3$$

$$= \text{RM}1\,092.73$$

Answer / Jawapan: **D**

10. $JK - ML = 30 \text{ cm}$

$$KL = \sqrt{80^2 - 30^2}$$

$$= 74.16$$

Answer / Jawapan: **B**

11. $\sqrt{\frac{2 + m}{m}} = K$

$$\frac{2 + m}{m} = K^2$$

$$2 + m = mK^2$$

$$mK^2 - m = 2$$

$$m(K^2 - 1) = 2$$

$$m = \frac{2}{K^2 - 1}$$

Answer / Jawapan: **B**

12. 5, 6, J, J, 15, 15, 15

Median = 10

5, 6, J, 10, 15, 15, 15

J = 10

Add new integer, 4 into the set.

Tambah integer baru, 4 ke dalam set.

4, 5, 6, 10, 10, 15, 15, 15

$$\text{Mean / min} = \frac{4 + 5 + 6 + 10 + 10 + 15 + 15 + 15}{8}$$

$$= \frac{80}{8}$$

$$= 10$$

Answer / Jawapan: **C**

13. The value that occurs most often is RM800. Therefore, the mode is RM800.

Nilai yang muncul paling kerap ialah RM800. Maka, mod ialah RM800.

Answer / Jawapan: C

$$14. \begin{aligned} 5x - 3 &\leq 7 & -3x &< 5 \\ 5x &\leq 7 + 3 & x &> -\frac{5}{3} \\ x &\leq 2 \end{aligned}$$

$$-\frac{5}{3} < x \leq 2 = -1, 0, 1, 2$$

Answer / Jawapan: A

$$15. \frac{360^\circ}{(180^\circ - 140^\circ)} = 9$$

Answer / Jawapan: B

16. It is a right-angled triangle, so $k = 90^\circ$. The side and the diagonal of the hexagon are not of equal lengths. Therefore, $j \neq l$.

Ini adalah sebuah segi tiga bersudut tegak, jadi $k = 90^\circ$. Bahagian sisi dan pepenjuru heksagon tidak sama panjang. Maka, $j \neq l$.

Answer / Jawapan: D

$$17. \begin{aligned} \angle BAC &= \angle BCJ = 76^\circ \\ \angle ACB &= \angle ABC = \frac{(180^\circ - 76^\circ)}{2} = 52^\circ \\ 2x + 52^\circ + 76^\circ &= 180^\circ \\ 2x &= 52^\circ \\ x &= 26^\circ \end{aligned}$$

Answer / Jawapan: D

$$18. \text{Radius / Jejari} = \frac{240}{2} = 120 \text{ cm} = 1.2 \text{ m}$$

$$\begin{aligned} \text{Volume of cone / Isi padu kon} &= \pi r^2 \frac{h}{3} \\ &= \frac{22}{7} \times (1.2)^2 \times \frac{6}{3} = 9.05 \text{ m}^3 \end{aligned}$$

Answer / Jawapan: C

19. 6 perfect square number cards

6 keping kad nombor kuasa dua sempurna

4, 81, 9, 100, 121, 169.

Probability that the card chosen is not a perfect square card / Kebarangkalian bahawa kad yang dipilih bukan kad nombor kuasa dua sempurna

$$= \frac{(15 - 6)}{15} = \frac{9}{15} = \frac{3}{5}$$

Answer / Jawapan: C

20. The area of the rectangle is 20 cm^2 . The possible sides are 5 cm to 4 cm or 2 cm to 10 cm. If the sides are 2 cm and 10 cm, the perimeter is 24 cm. If the sides are 5 cm and 4 cm, the perimeter is 18 cm.

Luas segi empat tepat tersebut ialah 20 cm^2 . Panjang sisi yang mungkin ialah 5 cm kepada 4 cm atau 2 cm kepada 10 cm. Jika sisi ialah 2 cm dan 10 cm, perimeter ialah 24 cm. Jika sisi ialah 5 cm dan 4 cm, perimeter ialah 18 cm.

Answer / Jawapan: A

Section B / Bahagian B

$$1. (i) 1 \times 3 + 5 = -2 \quad \boxed{+} \quad 10$$

$$(ii) -4 \quad \boxed{\times} \quad -6 = 6 \times 2 \quad \boxed{+} \quad 6 \quad \boxed{+} \quad 6$$

2. (i)	36, 33, 30, 27, 24, 21, 18, ...	✓
	2, 4, 6, 8, 12, 14, 16, ...	
	$\frac{7}{8}, \frac{3}{4}, \frac{5}{8}, \frac{1}{2}, \frac{3}{8}, \frac{1}{4}, \frac{1}{8}, \dots$	✓
	0, 1, 3, 6, 11, 15, 22, ...	

- (ii) The minimum deposit for a fixed deposit account is RM2 000 and the owner of a current account must be 18 years and above. Therefore, the most suitable account for Aiman is a savings account.

Deposit minimum bagi akaun simpanan tetap adalah RM2 000 dan pemilik akaun semasa pula mesti berumur 18 tahun ke atas. Jadi, jenis akaun yang paling sesuai untuk Aiman ialah akaun simpanan.

$$3. \begin{aligned} 2^2, 4^2, 6^2, 8^2, 10^2, 12^2 &= 4, 16, 36, 64, 100, 144 \\ 1^3, 2^3, 3^3, 4^3, 5^3, 6^3 &= 1, 8, 27, 64, 125, 216 \end{aligned}$$

4. It has 8 edges. / Mempunyai 8 bucu. ✓
Sum of exterior angles is 360° . / Jumlah sudut peluaran ialah 360° . ✓
Octagon. / Oktagon. ✓
Number of symmetrical axis is 8. / Bilangan paksi simetri ialah 8. ✓

5. (a) (i) Cube / Kubus
(ii) Pyramid / Piramid
(b) 7abc, 5bac

Section C / Bahagian C

1. (a) A more suitable chart is the bar chart, because a line graph is more suitable to compare some changes over time.

Carta yang lebih sesuai ialah carta palang, kerana graf garis lebih sesuai digunakan untuk membandingkan perubahan sesuatu perkara dengan masa.

- (b) Based of Pythagoras theorem

Berdasarkan teorem Pythagoras

$$x^2 + (7 + x)^2 = (8 + x)^2$$

$$x^2 + 49 + x^2 + 14x = 64 + x^2 + 16x$$

$$2x^2 + 14x + 49 = x^2 + 16x + 64$$

$$2x^2 + 14x + 49 \neq x^2 + 16x + 64$$

The triangle does not satisfy the Pythagoras theorem.

Therefore, it is not a right-angled triangle. / Segi tiga itu tidak memenuhi teorem Pythagoras. Maka, ia bukan segi tiga bersudut tegak.

- (c) From Amir's house to the post office

Dari rumah Amir ke pejabat pos

$$60 \frac{\text{km}}{\text{hour / jam}} = \frac{15}{x}$$

$$x = \frac{15}{60}$$

$$x = 0.25 \text{ hour / jam}$$

From the post office to the bakery

Dari pejabat pos ke kedai roti

$$60 \frac{\text{km}}{\text{hour}} = \frac{40}{x}$$

$$x = \frac{40}{60}$$

$$x = \frac{2}{3} \text{ hour / jam}$$

Total time taken / Jumlah masa diambil

$$= 0.25 \text{ hour / jam} + \frac{2}{3} \text{ hour / jam} +$$

10 minutes / minit

$$= 65 \text{ minutes / minit}$$

Amir has to leave his house before 1:25 p.m.

Amir perlu bertolak dari rumahnya sebelum jam 1:25 p.m.

2. (a) Che Mat's balanced money for donation

Baki duit Che Mat untuk derma

$$= \text{RM}10 - 2(1.40) - 3.70$$

$$= \text{RM}10 - \text{RM}6.50$$

$$= \text{RM}3.50$$

- (b) Syarikat Maju Jaya offers RM4 for 35 minutes and Syarikat Serba Boleh offers RM4 for only 20 minutes. This shows that Syarikat Maju Jaya gives better offer compared to Syarikat Serba Boleh.

Syarikat Maju Jaya menawarkan RM4 untuk 35 minit dan Syarikat Serba Boleh menawarkan RM4 untuk 20 minit sahaja. Ini menunjukkan bahawa Syarikat Maju Jaya memberi tawaran yang lebih baik berbanding Syarikat Serba Boleh.

- (c) Volume of the bottle = maximum volume of water

Isi padu botol = isi padu maksimum air

$$(20 - x)^2 \times 20 = 2\,000 - 100x$$

$$(400 - 40x + x^2) \times 20 = 2\,000 - 100x$$

$$20x^2 - 800x + 8\,000 = 2\,000 - 100x$$

$$20x^2 - 700x + 6\,000 = 0$$

$$(x - 15)(x - 20) = 0$$

$$x = 15, x = 20$$

3. (a) The length of side opposite to the angle x

Panjang sisi yang bertentangan dengan sudut x

$$= \sqrt{10^2 - 8^2} \text{ cm}$$

$$= 6 \text{ cm}$$

$$\cos / \cos x = \frac{4}{5}$$

$$\sin x = \frac{3}{5}$$

$$\tan x = \frac{3}{4}$$

- (b) Since lines AB and JK are parallel

Oleh kerana garisan AB dan JK selari

$$y = 180^\circ - 70^\circ = 110^\circ$$

$$\angle JKB = 180^\circ - 80^\circ = 100^\circ$$

$$\angle KBC = 180^\circ - 80^\circ = 100^\circ$$

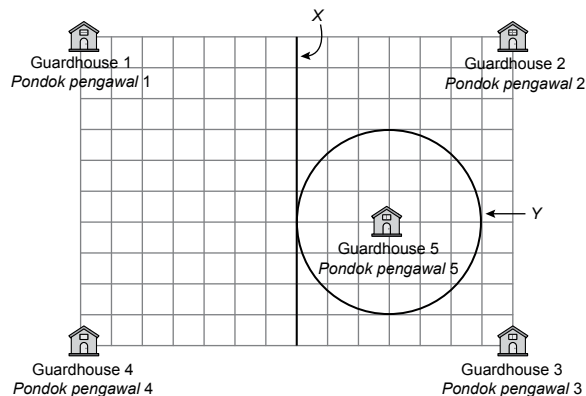
$$\angle BCL = \angle JAB = 110^\circ$$

$$\angle BCK = 110^\circ - 70^\circ = 40^\circ$$

$$x = 180^\circ - 40^\circ - 100^\circ = 40^\circ$$

$$x = 40^\circ, y = 110^\circ$$

- (c) (i) & (ii)



- (iii) No, because the reflexology lane and the running track will intersect.

Tidak, kerana laluan refleksologi dan trek larian akan bersilang.

4. (a) Let x be the number of fridge magnet bought in Kumamoto

Katakan x ialah bilangan pelekat peti sejuk yang dibeli di Kumamoto

$$\frac{2}{5} = \frac{10}{17 + x}$$

$$\frac{17 + x}{10} = \frac{5}{2}$$

$$17 + x = 25$$

$$x = 8$$

- (b) $\frac{6 + 2x}{2} > 7x + 11$

$$6 + 2x > 14x + 22$$

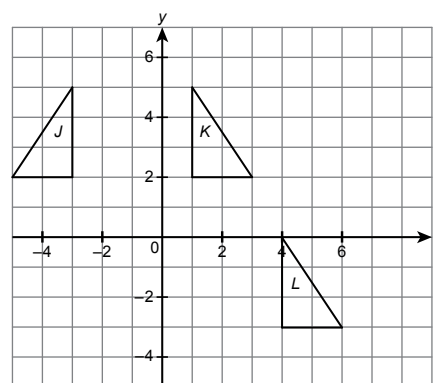
$$12x < -16$$

$$x < -\frac{4}{3}$$

- (c) (i) Reflection at $x = -1$.

Refleksi pada $x = -1$.

- (ii)



- (iii) Reflection at $x = 3$.

Refleksi pada $x = 3$.



5. (a) $x = 64^\circ \times 2 = 128^\circ$

$\angle OSR = \angle OQR = 90^\circ$

$y = 360^\circ - 128^\circ - 90^\circ - 90^\circ$
 $= 52^\circ$

(b) (i) The lowest common multiple of 45 and 50

Gandaan sepunya terkecil bagi 45 dan 50

2	45, 50
3	45, 25
3	15, 25
5	5, 25
5	1, 5
	1, 1

$2 \times 3 \times 3 \times 5 \times 5 = 450$ minutes / minit

$\frac{450}{60} = 7\frac{1}{2}$ hours / jam

(ii) Let x be the number of banana cake and y be the number of chocolate cake

Katakan x sebagai bilangan kek pisang dan y sebagai bilangan kek coklat

$50x = 450$

$x = \frac{450}{50} = 9$

$45y = 450$

$y = \frac{450}{45} = 10$

9 banana cakes and 10 chocolate cakes are baked.

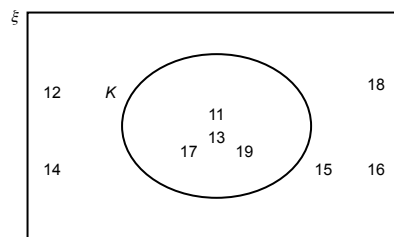
9 biji kek pisang dan 10 biji kek coklat telah dibakar.

(c) $150 \div 32 = 4.69$

He could buy a maximum of 4 cartons. But, with the promotion of buy 3 cartons get free 1 carton, he would get 5 cartons in total.

Dia boleh membeli maksimum 4 karton. Tetapi, dengan promosi beli 3 karton percuma 1 karton, dia akan mendapat 5 karton kesemuanya.

6. (a)



(b) $4r + 9s = 117$ ①

$r - s = 13$ ②

From / Dari ②,

$r = 13 + s$ ③

Substitute ③ into ①

Gantikan ③ ke dalam ①

$4(13 + s) + 9s = 117$

$52 + 4s + 9s = 117$

$13s = 65$

$s = 5$

Substitute s into ③

Gantikan s ke dalam ③

$r = 13 + 5$

$r = 18$

(c) $OJ = OL = OK = \frac{18 - 8}{2} = 5$ cm

$JK = 5 \times 2 = 10$ cm

$LK = \sqrt{10^2 - 8^2} = 6$ cm

Area of the shaded region = area of circle – area of triangle

Luas kawasan berlorek = luas bulatan – luas segi tiga

$= \left(\frac{22}{7} \times 5^2 \right) - \left(\frac{1}{2} \times 6 \times 8 \right)$

$= 78\frac{4}{7} - 24$

$= 54\frac{4}{7}$ cm²