

Penyelesaian Lengkap

PENTAKSIRAN SUMATIF

Kertas 1

1 $0.05963 = 0.060$ (2 a.b./s.f.)

Jawapan/Answer: **D**

2 $2.14 \times 10^3 \times 1.5 \times 10^2 = 3.21 \times 10^{3+2}$
 $= 3.21 \times 10^5$

Jawapan/Answer: **A**

3 $0.0873 \approx 0.087$

Jawapan/Answer: **B**

4 I	9.5 eksabait = 9.5×10^{18} bait 9.5 exabytes = 9.5×10^{18} bytes
II	1 250 femtoliter/femtolitres = $(1.25 \times 10^3) \times 10^{-15}$ liter/litres = 1.25×10^{-12} liter/litres
II	25 desimeter/decimetres = $(2.5 \times 10) \times 10^{-1}$ meter/metres = 2.5 meter/metres $\neq 2.5 \times 10^2$ meter/metres
IV	0.056 nanometer/nanometres = $(5.6 \times 10^{-2}) \times 10^{-9}$ meter/metres = 5.6×10^{-11} meter/metres

Jawapan/Answer: **D**

5 $8(2 - 7) + \frac{2}{5} \div 0.25 = 8(-5) + \frac{2}{5} \div \frac{1}{4}$
 $= -40 + \frac{2}{5} \times 4$
 $= \frac{-200 + 8}{5}$
 $= \frac{-192}{5}$

Jawapan/Answer: **D**

6 Bilangan murid lelaki kelab Sains
Number of boys in Science club = 24

$\frac{2}{3} \times$ bilangan ahli kelab Sains/Number of Science club
members = 24

Bilangan ahli kelab Sains
Number of Science club members

$= 24 \times \frac{3}{2} = 36$

Bilangan ahli kelab Matematik
Number of Mathematics club members

$= \frac{36}{2} \times 3 = 54$

Jawapan/Answer: **B**

7 $P = \text{RM}5\,000$, $r = \frac{3}{100} = 0.03$, $t = 6$

$$MV = P \left(1 + \frac{r}{n} \right)^{nt}$$

$$= 5\,000 \left(1 + \frac{0.03}{4} \right)^{(4)(6)}$$

$$= \text{RM}5\,982.07$$

Jawapan/Answer: **C**

8 $a < 0$ dan/and $|a| < 3$
 $\therefore a = -1$

Jawapan/Answer: **B**

9 Katakan umur Linda tahun ini

Let Linda's age this year = x

Umur kakak tahun ini/Linda's sister age this year

= $x + 15$

4 tahun yang lalu/4 years ago,

$$(x - 4)(x + 15 - 4) = 364$$

$$(x - 4)(x + 11) = 364$$

$$x^2 + 11x - 4x - 44 - 364 = 0$$

$$x^2 + 7x - 408 = 0$$

$$(x + 24)(x - 17) = 0$$

$$x = 17 \text{ (-24 ditolak/rejected)}$$

Jumlah umur tahun hadapan/Total age next year

$$= (17 + 1) + (17 + 15 + 1) = 51$$

Jawapan/Answer: **A**

10 $3(5^2) + 4(5) + 3 = 3(25) + 20 + 3$
 $= 98$

$$\begin{array}{r} 8 \overline{) 98} \\ 8 \overline{) 12} \dots 2 \\ 8 \overline{) 1} \dots 4 \\ 0 \dots 1 \end{array}$$

$$98_{10} = 142_8$$

Jawapan/Answer: **C**

11 $10101_2 + 101011_2 = 1101100_2$
 $= 108_{10}$

$$\begin{array}{r} 7 \overline{) 108} \\ 7 \overline{) 15} \dots 3 \\ 7 \overline{) 2} \dots 1 \\ 0 \dots 2 \end{array}$$

$$108_{10} = 213_7$$

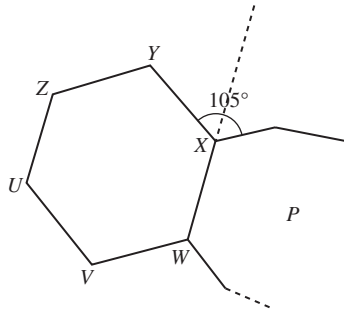
Jawapan/Answer: **B**

12 Tidak mematuhi bentuk I hujah deduktif yang sah \rightarrow
 Tidak sah
 Does not comply with the form I of deductive argument.
 \rightarrow Not valid

Tidak munasabah kerana tidak sah dan kesimpulan adalah palsu. Comel mungkin bukan kucing.
Not sound because it is not valid and the conclusion is false. Comel maybe is not a cat.

Jawapan/Answer: **A**

13



Sudut peluaran heksagon/Exterior angle of hexagon

$$= \frac{360^\circ}{6}$$

$$= 60^\circ$$

Sudut peluaran poligon P/Exterior angle of polygon P

$$= 105^\circ - 60^\circ$$

$$= 45^\circ$$

Bilangan sisi poligon P/Number of sides of polygon P

$$= \frac{360^\circ}{45}$$

$$= 8$$

Jumlah sudut pedalaman poligon P

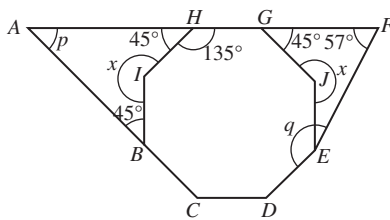
Sum of interior angles of polygon P

$$= (8 - 2) \times 180^\circ$$

$$= 1\ 080^\circ$$

Jawapan/Answer: **C**

14



Sudut peluaran oktagon/Exterior angle of octagon

$$= \frac{360^\circ}{8}$$

$$= 45^\circ$$

Sudut pedalaman oktagon/Interior angle of octagon

$$= 180^\circ - 45^\circ$$

$$= 135^\circ$$

$$x = 360^\circ - 135^\circ$$

$$= 225^\circ$$

$$p = 360^\circ - 225^\circ - 45^\circ - 45^\circ$$

$$= 45^\circ$$

$$\angle JEF = 360^\circ - 225^\circ - 45^\circ - 57^\circ$$

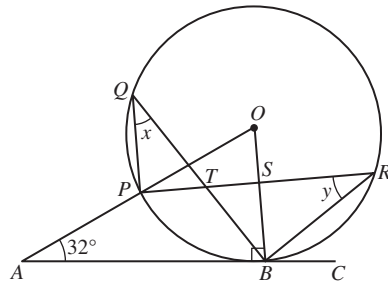
$$= 33^\circ$$

$$p + q = 45^\circ + 135^\circ + 33^\circ$$

$$= 213^\circ$$

Jawapan/Answer: **D**

15



$$\angle AOB = 180^\circ - 90^\circ - 32^\circ$$

$$= 58^\circ$$

$$x = \frac{58^\circ}{2}$$

$$= 29^\circ$$

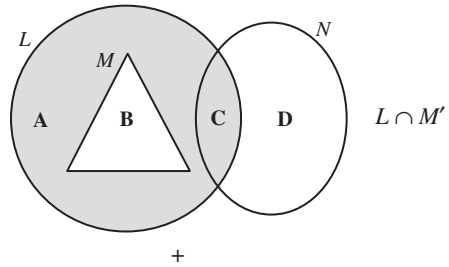
$$y = x$$

$$x + 3y = 29^\circ + 3(29^\circ)$$

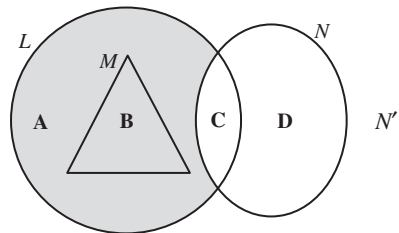
$$= 116^\circ$$

Jawapan/Answer: **C**

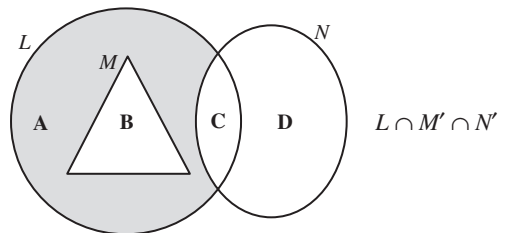
16



+



↓



Jawapan/Answer: **A**

17 $\xi = \{28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41\}$

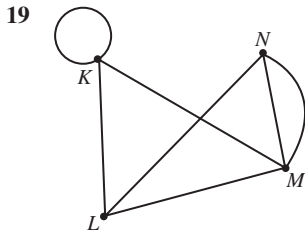
$$M = \{29, 30, 32, 34, 36, 38, 41\}$$

$$M' = \{28, 31, 33, 35, 37, 39, 40\}$$

$$n(M') = 7$$

Jawapan/Answer: **A**

18 Jawapan/Answer: **D**



- A $n(E) = 7$
 B $d(K) = 4$
 C Graf terhasil **bukan** graf mudah kerana terdapat gelung dan berbilang tepi.
*The graph produced is **not** a simple graph because there are loop and multiple edges.*
 D $\sum d(V) = 2(7)$
 $= 14$

Jawapan/Answer: C

20 $\frac{5p}{3} + 3 \leq \frac{2p - 4}{5}$

Darab 15 pada kedua-dua belah

Multiply both sides with 15

$$25p + 45 \leq 6p - 12$$

$$25p - 6p \leq -12 - 45$$

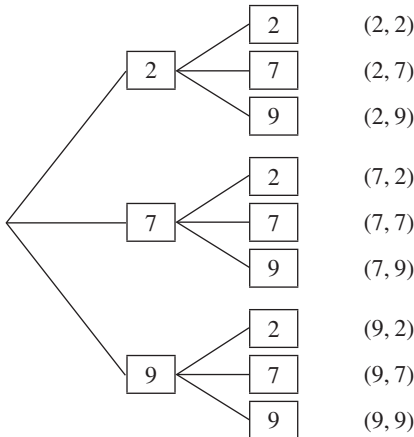
$$19p \leq -57$$

$$p \leq -3$$

Jawapan/Answer: A

21

Kesudahan
Outcomes



Jawapan/Answer: D

22 Luas di bawah graf/Area under the graph = 50

$$\frac{1}{2} (4 + 7)(4) + (t - 4)(7) = 50$$

$$22 + 7t - 28 = 50$$

$$7t = 50 + 6$$

$$t = \frac{56}{7}$$

$$= 8$$

Jawapan/Answer: A

23 Jumlah jarak = Luas di bawah graf

Total distance = Area under the graph

$$= \frac{1}{2} (2 + 8)(2) + (6 - 2)(8) + \frac{1}{2} (8 + 20)(14 - 6)$$

$$= 10 + 32 + 112$$

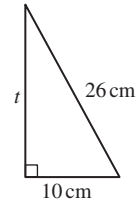
$$= 154 \text{ m}$$

$$\text{Laju purata/Average speed} = \frac{154}{14}$$

$$= 11 \text{ m s}^{-1}$$

Jawapan/Answer: A

24



Katakan tinggi kon = t

Let the height of cone = t

$$10^2 + t^2 = 26^2$$

$$t^2 = 676 - 100$$

$$t^2 = 576$$

$$t = 24 \text{ cm}$$

Jumlah isi padu/Total volume

$$= \frac{22}{7} (10^2)(16) + \left(\frac{1}{3}\right) \left(\frac{22}{7}\right) (10^2)(24)$$

$$= 7\,542.86$$

$$= 7\,543$$

$$= 7.543 \times 10^3$$

Jawapan/Answer: D

25 $PU = \sqrt{14^2 + 14^2}$
 $= 19.8 \text{ cm}$

$$\tan \angle VPU = \frac{8}{19.8}$$

$$= 0.404$$

Jawapan/Answer: B

26 Sisihan piawai/Standard deviation = 2×3.399
 $= 6.798$

Jawapan/Answer: C

27 Min = $\frac{23 + 24 + 2(25) + 26 + 30 + 31 + 2(32) + 34 + 36 + 37 + 3(40) + 41 + 42 + 50 + 51 + 54}{20}$

$$\text{Mean} = \frac{713}{20}$$

$$= 35.65 \text{ tahun/years}$$

Median = Antara data ke-10 dan ke-11

Between the 10th data and 11th data

$$= \frac{34 + 36}{2}$$

$$= 35$$

Beza/Difference = $35.65 - 35$
 $= 0.65$

Jawapan/Answer: D

- 28 Jumlah simpanan diperlukan/*Total savings needed*
 $= \left(\frac{10}{100} \times \text{RM}600\,000 \right) + \text{RM}10\,000$
 $= \text{RM}70\,000$
 Jumlah simpanan bulanan/*Total monthly savings*
 $= \frac{70\,000}{5 \times 12}$
 $= \text{RM}1\,166.67$
 Baki pendapatan bulanan/*Balance of monthly income*
 $= \text{RM}8\,200 - 5\,600 - 1\,166.67$
 $= \text{RM}1\,433.33$

Jawapan/*Answer*: C

- 29 Aliran tunai/*Cash flow* = 300
 $3\,850 - 1\,750 - x = 300$
 $x = 3\,850 - 1\,750 - 300$
 $= 1\,800$

Jawapan/*Answer*: B

- 30 Membeli sebuah rumah banglo/*Buy a bungalow*

Jawapan/*Answer*: A

- 31 $\frac{6x^2 - 10x - 16}{3x - 8} = \frac{2(3x^2 - 5x - 8)}{3x - 8}$
 $= \frac{2(3x - 8)(x + 1)}{3x - 8}$
 $= 2(x + 1)$

Jawapan/*Answer*: D

- 32 $\sqrt[3]{(27x^9y^3 \times x^4y^{-2} \div 6x^2y^3)} = \frac{(3^3x^9y^3)^{\frac{1}{3}} \times x^4y^{-2}}{6x^2y^3}$
 $= \frac{3x^{-3+4-(-2)}y^{1+(-2)-3}}{6}$
 $= \frac{x^3y^{-4}}{2}$
 $= \frac{x^3}{2y^4}$

Jawapan/*Answer*: C

- 33 Graf yang mempunyai kecerunan 2 dan pintasan- $y = 3$
Graph with gradient 2 and y-intercept = 3

Jawapan/*Answer*: D

- 34 Jumlah luas permukaan/*Total surface area*
 $= 2(1.7 \times 2.7) + 2(1.7 \times 0.7) + 2(0.7 \times 2.7)$
 $= 15.34 \text{ m}^2$
 Kos/*cost* = $\text{RM}45 \times 15.34$
 $= \text{RM}690.30$

Jumlah bayaran/*Total payable*
 $= \text{RM}(690.30 + 80)$
 $= \text{RM}770.30$

Jawapan/*Answer*: D

- 35 $1 - P(\text{gagal kedua-dua mata pelajaran/fail in both subjects})$
 $= 1 - 0.5(0.2)$
 $= 1 - 0.1$
 $= 0.9$

Jawapan/*Answer*: D

36

Jumlah masa (minit) <i>Total time (minutes)</i>	30	45	60	75	90	105	120	150
Bilangan murid <i>Number of students</i>	1	4	5	6	7	5	4	3
Kekerapan longgokan <i>Cumulative Frequency</i>	1	5	10	16	23	28	32	35

$$C_1 \quad C_2 - C_5 \quad C_6 - C_{10} \quad C_{11} - C_{16} \quad C_{17} - C_{23} \quad C_{24} - C_{28} \quad C_{29} - C_{32} \quad C_{33} - C_{35}$$

$\uparrow Q_1$

$\uparrow Q_3$

Julat antara kuartil = $105 - 60$

Interquartile range = 45

Jawapan/*Answer*: A

- 37 Jawapan/*Answer*: C

- 38 Jawapan/*Answer*: B

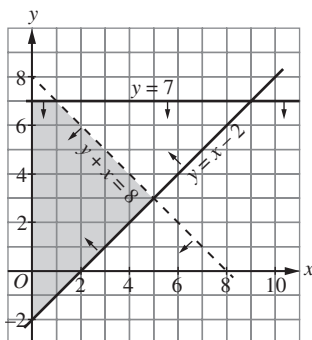
- 39 Jawapan/*Answer*: B

- 40 Jawapan/*Answer*: A

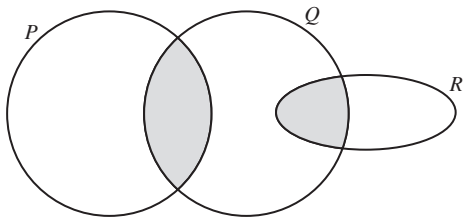
Kertas 2

Bahagian A

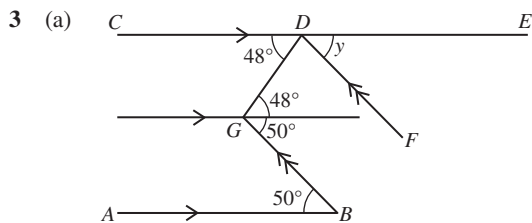
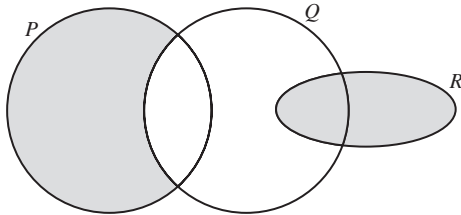
1



2 $Q \cap (P \cup R)$



(a) $(P \cap Q') \cup R$



Lukis satu garis lurus yang selari dengan AB dan CD untuk mendapatkan sudut berselang-seli.
Draw a straight line that is parallel to AB and CD to get alternate angle.

$$x = 48^\circ + 50^\circ = 98^\circ$$

(b) BG selari dengan FD , maka
 $\angle GDF = 180^\circ - 98^\circ$ (sudut pedalaman/interior angle)
 $= 82^\circ$
 $y = 180^\circ - 48^\circ - 82^\circ = 50^\circ$

4

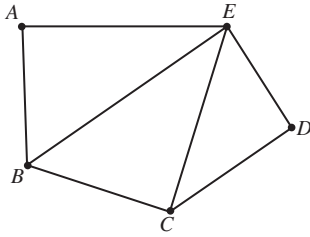
$$\begin{array}{r} 3 \ 6 \ 1_7 \\ + \ 5 \ 2 \ 4_7 \\ \hline 1 \ 2 \ 1 \ 5_7 \end{array}$$

$$1(7^3) + 2(7^2) + 1(7) + 5 = 453$$

$$\begin{array}{r} 8 \overline{) 453} \\ 8 \overline{) 56} \dots 5 \\ 8 \overline{) 7} \dots 0 \\ \hline 0 \dots 7 \end{array}$$

$$\therefore 1215_7 = 705_8$$

5 $n(V) = 5, \sum d(v) = 14$
 $2n(E) = 14$
 $n(E) = 7$



(Atau graf lain yang memenuhi syarat diberi.)
 (Or other graphs that fulfill the conditions given.)

- 6 Isi padu kuboid $ABCDEFGH$ + isi padu separuh silinder
 Volume of cuboid $ABCDEFGH$ + volume of half cylinder

$$\begin{aligned}
 &= [4 \times 8 \times 10] + \left[\frac{1}{2} \times \left(\frac{22}{7} \right) \times 4^2 \times (10 - 4) \right] \\
 &= 320 + 150 \frac{6}{7} \\
 &= 470 \frac{6}{7} \text{ cm}^3
 \end{aligned}$$

- 7 (a) $x^2 + (5x - 11)^2 = (3x + 4)^2$
 $x^2 + 25x^2 - 110x + 121 = 9x^2 + 24x + 16$
 $26x^2 - 110x + 121 - 9x^2 - 24x - 16 = 0$
 $17x^2 - 134x + 105 = 0$
 $(17x - 15)(x - 7) = 0$

$$x = \frac{15}{17} \text{ (ditolak/rejected)}$$

$$\therefore x = 7$$

- (b) Perimeter = $7 + [5(7) - 11] + [3(7) + 4]$
 $= 56 \text{ cm}$

$$\begin{aligned}
 \text{Luas/Area} &= \frac{1}{2} \times [5(7) - 11] \times 7 \\
 &= 84 \text{ cm}^2
 \end{aligned}$$

- 8 $\bar{x} = 7 \frac{17}{30}$

$$\frac{3(5) + 5(6) + 7x + 6(8) + 5(9) + 4(10)}{3 + 5 + x + 6 + 5 + 4} = \frac{227}{30}$$

$$\frac{178 + 7x}{23 + x} = \frac{227}{30}$$

$$5\ 340 + 210x = 5\ 221 + 227x$$

$$119 = 17x$$

$$x = 7$$

- 9 (a) Sah kerana mematuhi bentuk hujah deduktif yang sah.
 Valid because it complies with the valid form of deductive argument.

Tidak munasabah kerana premis 1 dan kesimpulan adalah palsu.
 Not sound because premise 1 and conclusion are false.

- (b) Jika $x - 9 > 0$, maka $x > 9$.
 If $x - 9 > 0$, then $x > 9$.

\therefore Benar/True.

- 10 (a) Jumlah pinjaman/Loan amount, $P = \frac{90}{100} \times \text{RM}98\ 000$
 $= \text{RM}88\ 200$

$$I = Prt$$

$$= \text{RM}88\ 200 \times \frac{2.5}{100} \times 9$$

$$= \text{RM}19\ 845$$

$$\begin{aligned}
 \text{(b) Ansuran bulanan/Monthly instalment} &= \frac{P + I}{12t} \\
 &= \frac{\text{RM}88\,200 + \text{RM}19\,845}{12(9)} \\
 &= \text{RM}1\,000.42
 \end{aligned}$$

Bahagian B

$$11 \text{ (a) } \frac{1}{2}(x+3)(x+2) = x^2$$

$$x^2 + 5x + 6 = 2x^2$$

$$x^2 - 5x - 6 = 0 \text{ (tertunjuk/shown)}$$

$$\text{(b) } x^2 - 5x - 6 = 0$$

$$(x+1)(x-6) = 0$$

$$x = 6 \text{ (tolak nilai negatif bagi } x \text{ / reject negative value of } x \text{)}$$

$$\text{(c) Jumlah luas dua bentuk/Total area of two shapes} = 2 \times 6^2 = 72 \text{ cm}^2$$

$$\text{(d) Panjang } RQ \text{/Length of } RQ = \sqrt{9^2 + 8^2} = 12.04$$

$$\text{Panjang wayar diperlukan/Length of wire needed} = 9 + 8 + 12.04 + 4(6) = 53.04 \text{ cm}$$

$$12 \text{ (a) Tempoh masa/Duration} = (3.5 - 1) \times 60 \text{ minit/minutes} = 150 \text{ minit/minutes}$$

$$\text{(b) Jumlah jarak dilalui/Total distance travelled} = 439.5$$

$$\frac{1}{2}(3.5 + 2.5)(v - 20) + \frac{1}{2}(v - 20 + v)(5 - 3.5) + \frac{1}{2}(1)(v) = 439.5$$

$$6v - 120 + (2v - 20)(1.5) + v = 2(439.50)$$

$$6v - 120 + 3v - 30 + v = 879$$

$$10v = 879 + 120 + 30$$

$$10v = 1\,029$$

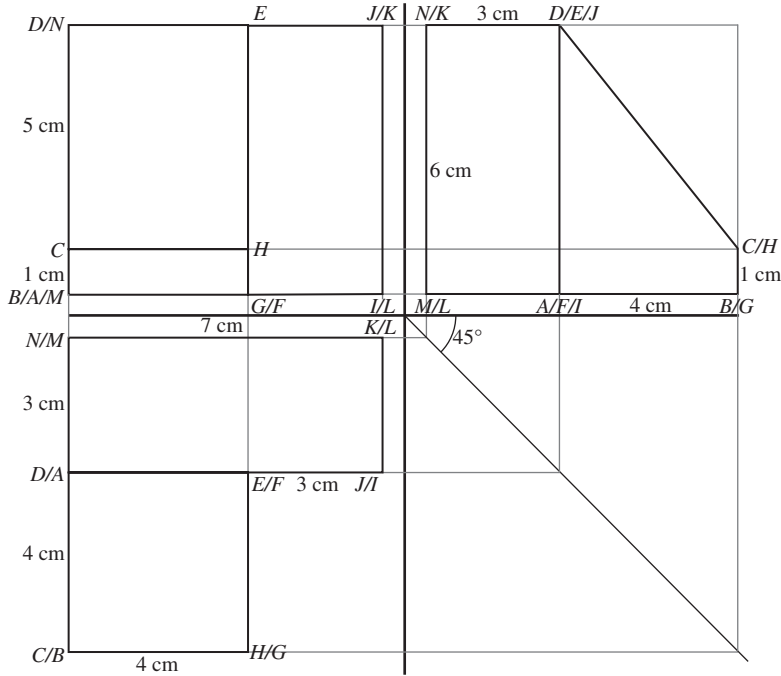
$$v = 102.9 \text{ km j}^{-1} \text{ (km h}^{-1} \text{)}$$

$$\text{(c) Kadar perubahan laju/Rate of change in speed}$$

$$= \frac{(0 - 102.9) \text{ km j}^{-1} \text{ (km h}^{-1} \text{)}}{1 \text{ j (h)}}$$

$$= -102.9 \text{ km j}^{-2} \text{ (km j}^{-2} \text{)}$$

- 13 (b) Dongakan Depan/*Front Elevation* (c) Dongakan Sisi/*Side Elevation*



(a) Pelan/*Plan*

(d) $CD = 6.4$ cm

14 (a)
$$\frac{pq + 3q}{p^2 - p} \div \frac{p^2 + p - 6}{p^2 - 1} = \frac{q(p + 3)}{p(p - 1)} \times \frac{p^2 - 1}{p^2 + p - 6}$$

$$= \frac{q(p + 3)}{p(p - 1)} \times \frac{(p + 1)(p - 1)}{(p + 3)(p - 2)}$$

$$= \frac{q(p + 1)}{p(p - 2)}$$

(b) (i) Katakan/*Let* $x =$ tembikai susu/*honeydew melon*, $y =$ belimbing/*starfruit*

$$5x + 7y = 58$$

$$x + 4y = 22$$

(ii) $5x + 7y = 58 \dots \textcircled{1}$

$x + 4y = 22 \dots \textcircled{2}$

$\textcircled{2} \times 5: \quad 5x + 20y = 110 \dots \textcircled{3}$

$\textcircled{3} - \textcircled{1}: \quad 13y = 52$
 $y = 4$

Daripada/*From* $\textcircled{2}$, $x + 4(4) = 22$

$$x = 6$$

Harga 1 kg tembikai susu/*Price of 1 kg of honeydew melon* = RM6

Harga 1 kg belimbing/*Price of 1 kg of starfruits* = RM4

15 (a) Simpanan tetap bulanan/*Monthly fixed savings* = $10\% \times \text{RM}10\,800$
 $= \text{RM}1\,080$

(b)

Pelan Kewangan Encik Peter
Mr Peter's Financial Plan

Pendapatan dan Perbelanjaan <i>Income and Expenditure</i>	(RM)	
Pendapatan bersih Encik Peter <i>Net salary of Mr Peter</i>	10 800	
Pendapatan pasif <i>Passive income</i>	0	
Jumlah pendapatan bulanan <i>Total monthly income</i>		10 800
Tolak simpanan tetap bulanan <i>Minus fixed monthly savings</i>	1 080	
Tolak simpanan dana kecemasan/ <i>Minus emergency fund</i>	100	
Baki pendapatan <i>Income balance</i>		9 620
Tolak perbelanjaan tetap bulanan <i>Minus monthly fixed expenses</i>		
Ansuran pinjaman perumahan <i>Instalment of housing loan</i>	2 300	
Ansuran pinjaman kereta (1) <i>Instalment of car loan (1)</i>	1 350	
Ansuran pinjaman kereta (2) <i>Instalment of car loan (2)</i>	890	
Premium insurans/ <i>Insurance premiums</i>	1 100	
Jumlah perbelanjaan tetap bulanan <i>Total monthly fixed expenses</i>		5 640
Tolak perbelanjaan tidak tetap bulanan <i>Minus monthly variable expenses</i>		
Perbelanjaan petrol dan tol/ <i>Petrol and toll expenses</i>	380	
Bayaran bil utiliti/ <i>Utilities bills payment</i>	500	
Perbelanjaan dapur/ <i>Kitchen expenditure</i>	1 200	
Isteri/ <i>Wife</i>	800	
Anak-anak/ <i>Children</i>	500	
Ibu bapa/ <i>Parents</i>	500	
Jumlah perbelanjaan tidak tetap bulanan <i>Total monthly variable expenses</i>		3 880
Lebih pendapatan atau defisit <i>Surplus of income or deficit</i>		100

(c) Jumlah simpanan tetap selepas 6 bulan/*Total fixed savings after 6 months* = $6 \times \text{RM}1\,080$
= RM6 480

Jumlah dana kecemasan/*Emergency fund* = $6 \times \text{RM}100$
= RM600

Jumlah lebihan bagi 6 bulan/*Total surplus for 6 months* = $6 \times \text{RM}100$
= RM600

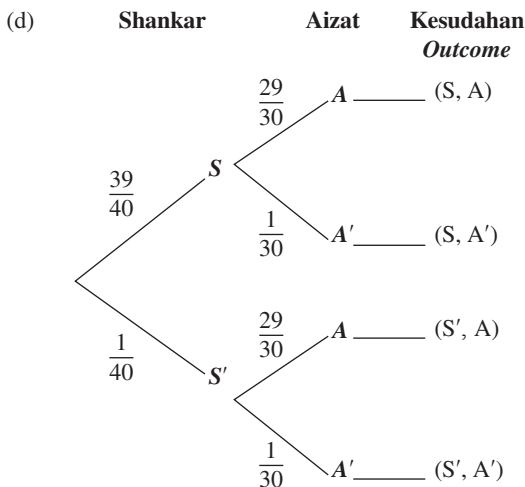
Jumlah simpanan/*Total savings* = $\text{RM}(6\,480 + 600 + 600)$
= RM7 680

Dia tidak dapat mencapai matlamatnya. Jumlah wang tidak mencukupi kerana masih kekurangan RM2 320. Dia memerlukan 8 bulan untuk mencapai matlamat ini.

He cannot achieve his goal. The total amount of money is not sufficient, still lack of RM2 320. He needs 8 months to achieve his goal.

Bahagian C

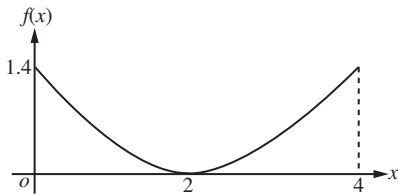
- 16 (a) (i) $120 - 80 = 40$ minit/*minutes*
 (ii) jam 0800 + 70 min = jam 0910
 Aizat bertolak dari plaza tol A pada pukul 9.10 pagi.
 $0800 \text{ hours} + 70 \text{ min} = 0910 \text{ hours}$
 Aizat departed from the toll Plaza A at 9.10 a.m.
 (iii) Mereka bertemu di Q, jarak dari plaza tol B = $200 - 100$
 $= 100$ km
 They meet at Q, distance from toll Plaza B = $200 - 100$
 $= 100$ km
 (iv) Laju purata/*Average speed* = $\frac{200 \text{ km}}{\frac{180}{60} \text{ j(h)}}$,
 $= 66\frac{2}{3}$ km/j(km/h)
- (b) (i) Jumlah simpanan yang diperlukan/*Total savings needed* = $\frac{10}{100} \times \text{RM}75\,000$
 $= \text{RM}7\,500$
 (ii) Bilangan bulan/*Number of months* = $\frac{7\,500}{500}$
 $= 15$ bulan/*months*
- (c) Jarak antara rumah Shankar dan Aizat/*Distance between Shankar's house and Aizat's house*
 $= \sqrt{[1 - (-3)]^2 + (6 - 3)^2}$
 $= \sqrt{16 + 9}$
 $= 5$ km
 Jarak antara rumah Shankar dan pejabat/*Distance between Shankar's house and office* = 5 km
 Jumlah jarak ulang alik setiap hari/*Daily round-trip distance* = $2 \times (5 + 5)$ km
 $= 20$ km
 Jumlah jarak dilalui dalam bulan Jun/*Total distance travelled in June* = $4 \times 5 \times 20$ km
 $= 400$ km
 Jumlah bayaran diterima oleh Aizat/*Total payment received by Aizat* = $50\% \times 400 \text{ km} \times \text{RM}1.50$
 $= \text{RM}300$



S – Shankar awal atau tepat masa/*Shankar is early or on time*
 S' – Shankar lewat/*Shankar is late*
 A – Aizat awal atau tepat masa/*Aizat is early or on time*
 A' – Aizat lewat/*Aizat is late*

Kebarangkalian salah seorang lewat/Probability that one of them is late
 $= P(S, A')$ atau/or $P(S', A)$
 $= \frac{39}{40} \left(\frac{1}{30} \right) + \frac{1}{40} \left(\frac{29}{30} \right)$
 $= \frac{17}{300}$

17



(a) (i) Persamaan paksi simetri/Equation of axis of symmetry, $x = 2$

$$-\frac{b}{2a} = 2$$

$$b = -4a \dots\dots ①$$

Gantikan (2, 0) ke dalam $f(x) = ax^2 + bx + 1.4$

Substitute (2, 0) into $f(x) = ax^2 + bx + 1.4$

$$0 = a(2)^2 + b(2) + 1.4$$

$$4a + 2b + 1.4 = 0 \dots\dots ②$$

Gantikan ① ke dalam ②

Substitute ① into ②

$$4a + 2(-4a) + 1.4 = 0$$

$$4a - 8a + 1.4 = 0$$

$$-4a + 1.4 = 0$$

$$4a = 1.4$$

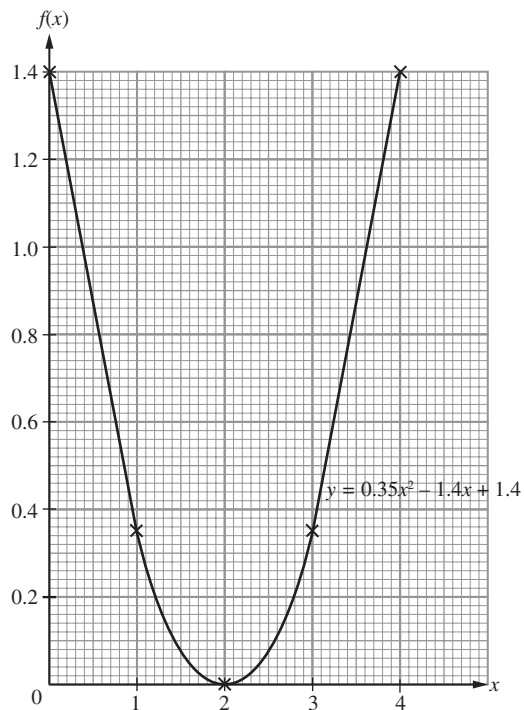
$$a = 0.35$$

$$b = -4(0.35)$$

$$= -1.4$$

(ii)

x	0	1	2	3	4
$f(x)$	1.4	0.35	0	0.35	1.4



- (b) (i) Jenama/Brand $P = 7$
Jenama/Brand $Q = 8.3$
- (ii) Jenama/Brand P :
Julat antara kuartil/*Interquartile range* $= 8.3 - 6.2$
 $= 2.1$
- Jenama/Brand Q :
Julat antara kuartil/*Interquartile range* $= 9 - 7$
 $= 2$
- (iii) Rashid patut memilih papan selaju berjenama Q . Jenama ini mendapat lebih banyak skor penilaian yang tinggi daripada pelanggannya. Julat antara kuartil yang lebih kecil menunjukkan konsistensi prestasi produk itu.
Rashid should choose the skateboard from brand Q. This brand obtains more high ratings from customers than that of brand P. The smaller interquartile range shows the consistency of the product's quality.