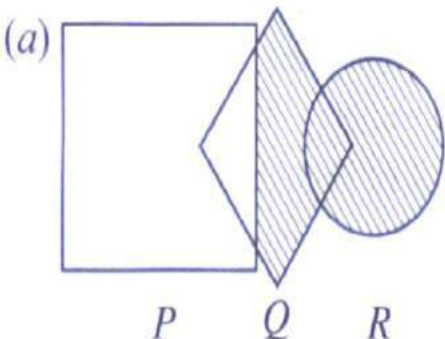
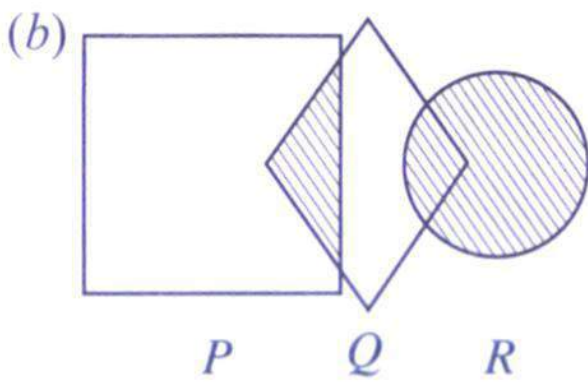


SKEMA JAWAPAN/ANSWER SCHEME (SET 2)

Soalan/ Ques	Langkah kerja/ <i>Solutions</i>	Markah/ Marks																								
1	$25m^2 - 30m - 40 = 0$ @ $5m^2 - 6m - 8 = 0$ $(5m + 4)(m - 2) = 0$ $m = -\frac{4}{5}$, $m = 2$	K1 K1 N1N1																								
Soalan/ Ques	Langkah kerja/ <i>Solutions</i>	Markah / Marks																								
2	<table><tr><th>Jisim Mass (kg)</th><th>Titik tengah Midpoint (x)</th><th>Kekerapan Frequency (f)</th><th>fx</th></tr><tr><td>10 - 14</td><td>12</td><td><i>P</i></td><td>$12p$</td></tr><tr><td>15 - 19</td><td>17</td><td>4</td><td>68</td></tr><tr><td>20 - 24</td><td>22</td><td>6</td><td>132</td></tr><tr><td>25 - 29</td><td>27</td><td>8</td><td>216</td></tr><tr><td>30 - 34</td><td>32</td><td>9</td><td>288</td></tr></table> fx bagi setiap selang kelas adalah betul <i>fx for all class interval is correct</i> $24\frac{2}{3} = \frac{12p + 68 + 132 + 216 + 288}{p + 4 + 6 + 8 + 9}$ $\frac{74}{3} = \frac{12p + 704}{p + 27}$ <i>P</i> = 3	Jisim Mass (kg)	Titik tengah Midpoint (x)	Kekerapan Frequency (f)	fx	10 - 14	12	<i>P</i>	$12p$	15 - 19	17	4	68	20 - 24	22	6	132	25 - 29	27	8	216	30 - 34	32	9	288	P1 K1K1 N1
Jisim Mass (kg)	Titik tengah Midpoint (x)	Kekerapan Frequency (f)	fx																							
10 - 14	12	<i>P</i>	$12p$																							
15 - 19	17	4	68																							
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25 - 29	27	8	216																							
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Soalan/ Ques	Langkah kerja/ <i>Solutions</i>	Markah / Marks																								
3	(a) 	K1																								

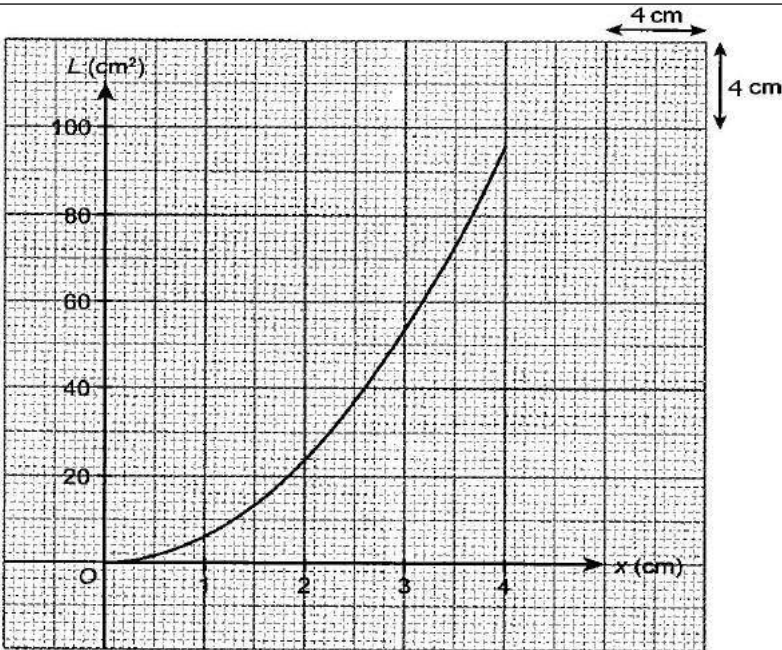
	(b)  <i>P Q R</i>	K2
Soalan/ Ques	Langkah kerja/ <i>Solutions</i>	Markah/ Marks
4	Katakan x = bilangan pekerja pemprosesan / <i>staff in processing department</i> y = bilangan pekerja teknikal / <i>staff in technical department</i> $x - y = 24$ @ $3x + 2y = 222$ @ setara/ <i>equivalent</i> $-5y = 150$ @ $5x = 270$ $x = 54, y = 30$	K1 K1 N1N1
Soalan/ Ques	Langkah kerja/ <i>Solutions</i>	Markah/ Marks
5	i) $x + y \leq 75$ ii) $60x + 15y \geq 600$ $4x + y \geq 40$ iii) $y : x \geq 1 : 2$ $\frac{y}{x} \geq \frac{1}{2}$ $y \geq \frac{1}{2}x$	K1 K1 K1
Soalan/ Ques	Langkah kerja/ <i>Solutions</i>	Markah/ Marks
6	(i) $(-6, -1) \longrightarrow (0, -3) \longrightarrow (2, 3)$ (ii) $(-6, -1) \longrightarrow (-2, -3) \longrightarrow (2, 1)$	P2 P2

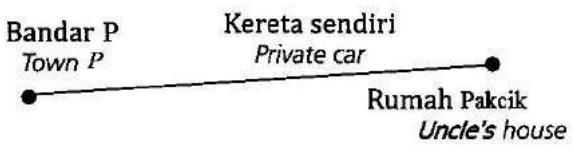
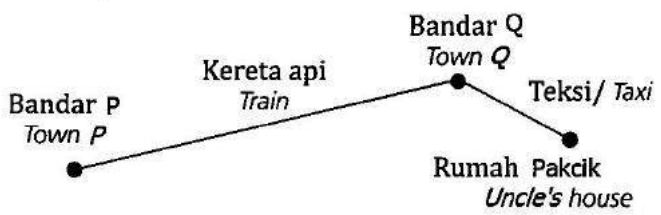
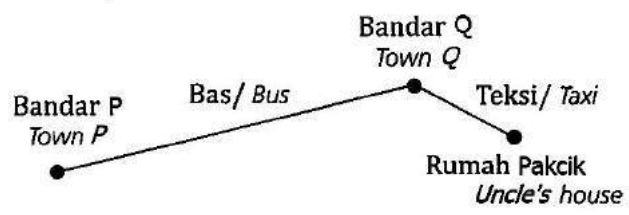
Soalan/ Ques	Langkah kerja/Solutions	Markah/ Marks
7	Isipadu silinder/ <i>Cylinder's volume</i> $= \frac{22}{7} \times 3^2 \times 12$ Isipadu kon/ <i>volume of Cone</i> $= \frac{1}{3} \times \frac{22}{7} \times 3^2 \times 12$ Baki pepejal/ <i>Remaining solid</i> = $\left(\frac{22}{7} \times 3^2 \times 12\right) - \left(\frac{1}{3} \times \frac{22}{7} \times 3^2 \times 12\right)$ $226.29 \text{ cm}^3 @ 226\frac{2}{7}$	K1 K1 K1 N1
Soalan/ Ques	Langkah kerja/Solutions	Markah/ Marks
8	(a) Gantikan $(x, 6)$ ke dalam persamaan $2y - 3x = 0$. <i>Substitute $(x, 6)$ into equation $2y - 3x = 0$.</i> $2(6) - 3x = 0$ $x = 4$ Koordinat A ialah/ <i>Coordinate A is</i> $(4, 6)$ (b) Gantikan $(8, 6)$ ke dalam persamaan $2y - 3x = 0$. <i>Substitute $(8, 6)$ into equation $2y - 3x = 0$.</i> $m = \frac{3}{2}$ $6 = \frac{3}{2}(8) + c \text{ or } c = -6$ $y_{BC} = \frac{3}{2}x - 6$	K1 N1 P1 K1 N1
Soalan/ Ques	Langkah kerja/Solutions	Markah/ Marks
9	(a) $\frac{80}{100} \times \text{RM}300\,000$ $= \text{RM}240\,000$ (b) $\frac{\text{RM}180\,000}{\text{RM}240\,000} \times \text{RM}70\,000$ $= \text{RM}52\,500 - \text{RM}3\,000$ $= \text{RM}49\,500$	K1 K1 K1 N1

Soalan / Ques	Langkah kerja / Solutions	Markah / Marks
10	(a) Implikasi 1/<i>implication 1</i> : Jika $5k^2 + k = 252$, maka $k = 7$ If $5k^2 + k = 252$, then $k = 7$ Implikasi 1/<i>implication 2</i> : Jika $k = 7$, maka $5k^2 + k = 252$ If $k = 7$, then $5k^2 + k = 252$ (b) <i>KL dan MN mempunyai kecerunan yang sama.</i> <i>KL and MN have the same gradient.</i> c) $3(2)^n - n, n = 1, 2, 3, \dots$	P1 P1 P1 K2
Soalan / Ques	Langkah kerja / Solutions	Markah / Marks
11	(a) (i) Tempoh/<i>Duration</i> $= 3 - 1.5$ $= 1.5 \text{ jam/hours}$ $= 90 \text{ minit/minutes}$ (ii) $\frac{h - 120}{2} = 90$ $h - 120 = 180$ $h = 300$ (iii) $300 - 120$ $= 180 \text{ km}$ (iv) $\frac{300 - 120}{0 - t} = \frac{120}{t - 4}$ $180(t - 4) = -120t$ $300t = 720$ $t = 2.4 \text{ jam/hours}$ $= 2 \text{ jam/hours } 24 \text{ minit/minutes}$ 11 + 13 30 24 54 Jam 1354/ 1354 hours	P1 K1 N1 N1 K1 K1 N1

11	(b) Laju Van P/ Speed of Van P $= \frac{120}{1.5}$ $= 80 \text{ km j}^{-1}$ Laju Van Q/ Speed of Van Q $= \frac{300}{4}$ $= 75 \text{ km j}^{-1}$ Van P bergerak dengan lebih laju dengan 80 km j^{-1} Van P moves faster with speed 80 km j^{-1}	K1 K1 N1
Soalan/ Ques	Langkah kerja/Solutions	Markah / Marks
12	(c) (b)	(a) Bentuk betul dengan trapezium ABFE atau DCGH Correct shape with trapezium ABFE or DCGH. Semua garis padat / All solid lines. $EF > EA > AB$ Ukuran betul kepada $\pm 0.2 \text{ cm}$ (sehalu) dan semua sudut pada bucu = $90^\circ \pm 1^\circ$ Measurement correct to $\pm 0.2 \text{ cm}$ (one way) and all angles at vertices = $90^\circ \pm 1^\circ$
		K1 K1 N1

	(b) Bentuk betul dengan segiempat $ABCD$ dan segiempat $BFGC$. <i>Correct shape with rectangle $ABCD$ and rectangle $BFGC$.</i> Semua garis padat / <i>All solid lines.</i> $AD = BC = FG = EH > AB = BF = DC = CG$ Ukuran betul kepada ± 0.2 cm (sehalu) dan semua sudut pada bucu = $90^\circ \pm 1^\circ$. <i>Measurement correct to ± 0.2 cm (one way) and all angles at vertices = $90^\circ \pm 1^\circ$.</i>	K1 K1 N1
	(c) Bentuk betul dengan segiempat $ADHE$. <i>Correct shape with rectangle $ADHE$.</i> All solid lines. $AD = EH = BC = FG > AE = DH$ Ukuran betul kepada ± 0.2 cm (sehalu) dan semua sudut pada bucu = $90^\circ \pm 1^\circ$. <i>Measurement correct to ± 0.2 cm (one way) and all angles at vertices = $90^\circ \pm 1^\circ$</i>	K1 K1 N1
Soalan/ Ques	Langkah kerja/ <i>Solutions</i>	Markah/ Marks
13		K2

13	(a) Gambar rajah pokok / <i>Tree diagram</i> Semua ruang sampel betul / <i>All sample spaces correct.</i> <u>Nota:</u> Dibenarkan dua kesalahan untuk 1 markah <u>Note:</u> Allow two mistakes for 1 mark	
	(b)(i) $= \left(\frac{8}{18} \times \frac{6}{17}\right) + \left(\frac{6}{18} \times \frac{5}{17}\right) + \left(\frac{4}{18} \times \frac{6}{18}\right)$ $= \frac{151}{459}$ atau setara / <i>or equivalent</i>	K1 N1
	(ii) $= \left(\frac{8}{18} \times \frac{7}{17}\right) = \frac{28}{153}$ atau setara / <i>or equivalent</i>	K1N1
	(iii) P(berlainan warna) P(different colours) $= \left(\frac{8}{18} \times \frac{6}{17}\right) + \left(\frac{8}{18} \times \frac{4}{17}\right) + \left(\frac{6}{18} \times \frac{8}{17}\right) +$ $\left(\frac{6}{18} \times \frac{4}{17}\right) + \left(\frac{4}{18} \times \frac{8}{18}\right) + \left(\frac{4}{18} \times \frac{6}{18}\right)$ $= \frac{922}{1\ 377}$	K1 N1
Soalan/ Ques	Langkah kerja/ <i>Solutions</i>	Markah/ <i>Marks</i>
14	(a) 12.615 54	P1 P1
	(b) 	

	Paksi dilukis dengan arah yang betul dan menggunakan skala yang betul bagi $0 \leq x \leq 4$. <i>Axes drawn in correct directions with uniform scales for $0 \leq x \leq 4$.</i> Semua 6 dan *2 titik diplot dengan betul, lengkung melalui semua titik bagi $y = 6x^2$. <i>All 6 and *2 points correctly plotted, the curve passes through all the points for $y = 6x^2$.</i>	P1 K2
	<u>Nota:</u> 6 atau 7 titik diplot dengan betul, 1 markah. <u>Note:</u> 6 or 7 points correctly plotted, award 1 mark. Lengkung licin tanpa garis lurus melalui semua 8 titik bagi $0 \leq x \leq 4$ dengan menggunakan skala yang diberi. <i>Smooth and continuous curve without any straight line passing through all 8 points for $0 \leq x \leq 4$ using the given scales.</i>	N1
	(c) $3.10 \leq x \leq 3.20$ $85.65 \leq y \leq 87.65$	N1 N1
Soalan/ Ques	Langkah kerja/ <i>Solutions</i>	Markah/ Marks
15	(a) (a) Laluan 1/ Route 1:  Laluan 2/ Route 2:  Laluan 3/ Route 3: 	K1 K1 K1

	(b) Laluan 1/ Route 1: Jarak/ Distance: 200 km Jumlah perbelanjaan/ Total expenses: $(200 \times \text{RM}0.18) + \text{RM}5.90 = \text{RM}41.90$ Masa/ Time: 2 jam 15 minit/ 2 hours 15 minutes Laluan 2/ Route 2: Jarak/ Distance: $190 + 15 = 205$ km Jumlah perbelanjaan/ Total expenses: $\text{RM}30 + \text{RM}20 = \text{RM}50$ Masa: 2 jam 30 minit + 30 minit = 3 jam Time: 2 hours 30 minutes + 30 minutes = 3 hours Laluan 3/ Route 3: Jarak/ Distance: $190 + 15 = 205$ km Jumlah perbelanjaan/ Total expenses: $\text{RM}13 + \text{RM}20 = \text{RM}33$ Masa: 3 jam + 30 minit = 3 jam 30 minit Time: 3 hours + 30 minutes = 3 hours 30 minutes	K1 K1 N1 K1 N1
	(c) Laluan 1, kerana Laluan 2 terlalu mahal dan Laluan 3 mengambil masa yang agak lama. Route 1, because Route 2 is too expensive and Route 3 takes a very long time.	P2

Soalan/ Ques	Langkah Kerja/Solutions	Markah/ Marks
16	(a) Katakan p = bilangan jubin saiz kecil/nombor of small tiles q = jubin saiz besar / nombor of big tiles $p + 2q = 155$ $3p + 14q = 665$ $\begin{bmatrix} 1 & 2 \\ 3 & 14 \end{bmatrix} \begin{bmatrix} p \\ q \end{bmatrix} = \begin{bmatrix} 155 \\ 665 \end{bmatrix}$ $\begin{bmatrix} p \\ q \end{bmatrix} = \frac{1}{1(14) - 2(3)} \begin{bmatrix} 14 & -2 \\ -3 & 1 \end{bmatrix} \begin{bmatrix} 155 \\ 665 \end{bmatrix}$ $p = 105$ $q = 25$	P1 P1 K2 N1 N1
	(b) (i) $35000 \times 0.032 \times 5$ Jumlah bayaran balik/total repayment : $= 350000 + (35000 \times 0.032 \times 5)$ $= 406000$ Ansuran bulanan/ monthly installments : $= \frac{406000}{5 \times 12}$ $= 676.67$	K1 K1 K1 N1

	(iii) $8 \times 42 @ \left(\frac{1}{2} \times (8+4) \times 28 \right) @ \left(\frac{1}{2} \times 50 \times 14 \right)$ $(8 \times 42) + \left(\frac{1}{2} \times (8+4) \times 28 \right) + \left(\frac{1}{2} \times 50 \times 14 \right)$ 994	K1 K1 N1
	(c) (i) RM 15300- RM400 = RM14900 (ii) $\left(\frac{20}{100} \times RM14900 \right) + RM 400$ RM3380	N1 K1 N1