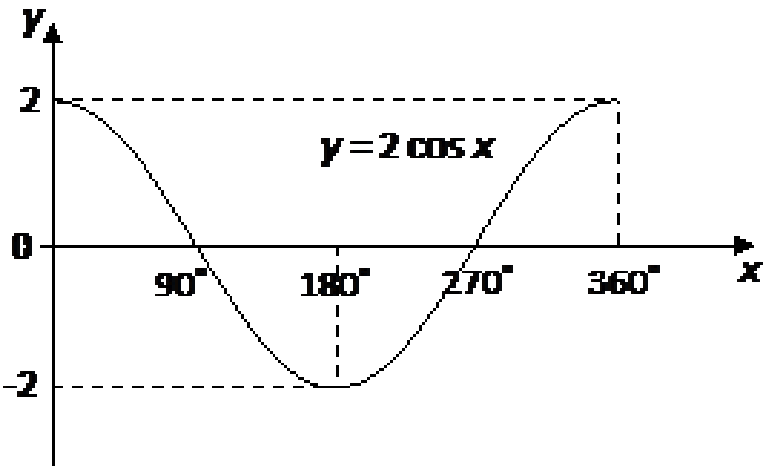


Skema Jawapan (Kertas 2 Set 1)
Answer Scheme

Question	Solution and Mark Scheme	Sub Mark	Mark
1	I : $y < 6 - x$ II : $y < x$ III : $y \geq -5x + 5$ IV : $y \geq 0$	K1 K1 K1 K1	4
2(a)	$346.5 = \left(\frac{22}{7}\right)(r^2)$ or equivalent $r = 10.5$	K1 N1	2
2(b)	$10.5 + 10.5 + \frac{60}{360} \times 2 \times \frac{22}{7} \times 10.5$ or equivalent 32	K1 N1	2
3(a)	$y = -\frac{3}{2}x + 3$	K1	1
3(b)	$m = -\frac{3}{2}$ or $-1\frac{1}{2}$ $5 = \left(-\frac{3}{2}\right)(-4) + c$ or $c = -1$ or equivalent $y = -\frac{3}{2}x - 1$ or equivalent	P1 K1 N1	3

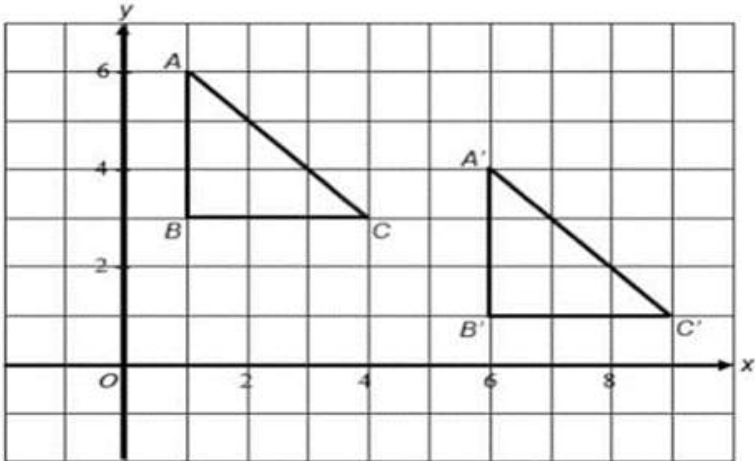
4(a)	$\frac{9 + 2 + 7 + x^2 - 1 + 4}{5} = 6$ $x^2 = 9$ $x = 3$	K1 K1 N1	3
4(b)	2, 4, 7, 8, 9 7	P1	1
5(a)	$t \propto \sqrt{h}$	P1	1
5(b)	$t = k\sqrt{h}$ $30 = k\sqrt{h}$ $k = \frac{30}{\sqrt{20}}$ Maka, Thus, $t = \frac{30}{\sqrt{20}}\sqrt{80}$ $t = 60 \text{ minit/minutes}$	K1 K1 N1	3
6	$\begin{pmatrix} 3 & 2 \\ 9 & 4 \end{pmatrix} \begin{pmatrix} x \\ y \end{pmatrix} = \begin{pmatrix} 4 \\ 14 \end{pmatrix}$ $\begin{pmatrix} x \\ y \end{pmatrix} = \frac{1}{3(4) - 2(9)} \begin{pmatrix} 4 & -2 \\ -9 & 3 \end{pmatrix} \begin{pmatrix} 4 \\ 14 \end{pmatrix}$ $\begin{pmatrix} x \\ y \end{pmatrix} = \begin{pmatrix} 2 \\ -1 \end{pmatrix}$ $x = 2$ $y = -1$	P1 K1 N1 N1	4

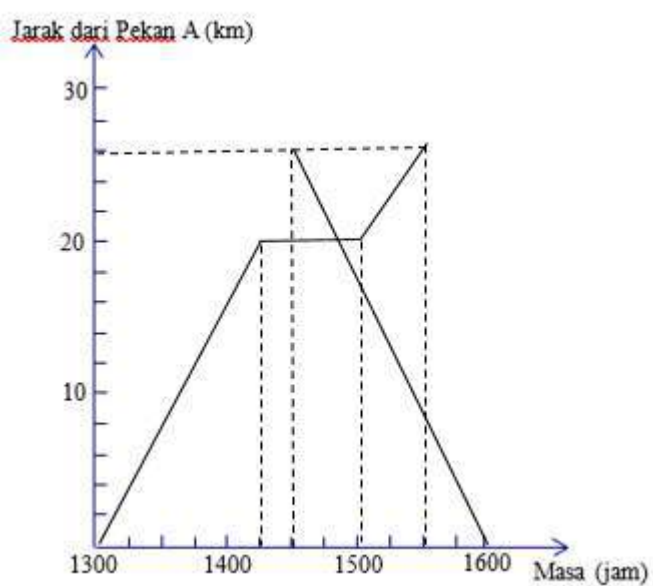
7	Kos perubatan selepas deduktibel <i>Medical costs after deductible</i> = RM20800 – RM500 = RM20 300 Bayaran kos yang ditanggung oleh syarikat insurans <i>Payment of costs incurred by the insurance company</i> $= \frac{75}{100} \times \text{RM20 300}$ =RM 15 225 Bayaran kos yang ditanggung oleh Puan Aminah <i>Payment of costs borne by Puan Aminah</i> $= \frac{25}{100} \times \text{RM20300} + \text{RM500}$ = RM5 575	K1 N1 K1 N1	4
8	Aliran tunai Encik Idris <i>Mr. Idris' cash flow</i> = RM4 500 + RM1 000 +RM750 – RM 1 500 – RM 900 = RM 3 850 Aliran tunai positif sebanyak RM3850 adalah baik untuk Encik Idris. <i>A positive cash flow of RM3850 is good for Encik Idris</i> Ini membolehkan Encik Idris menyimpan wang tersebut di bank dan menikmati faedah. Kaedah ini merupakan pendapatan pasif bagi Encik Idris <i>This allows Encik Idris to keep the money in the bank and enjoy the benefits. This method is a passive income for Mr. Idris</i>	K1 N1 N2	4

9(a)	$\frac{6}{10} \times \frac{6}{10}$ $\frac{9}{25}$	K1	
		N1	2
9(b)	$\frac{6}{10} \times \frac{5}{9}$ $\frac{1}{3}$	K1	
		N1	2
10(a)	(a)  Bentuk Graf kos Shape cos graph 1 pusingan/ cycle for $0^\circ \leq x \leq 360^\circ$ Maks=2, Min=-2 (Amplitud) Max = 2, Min = -2 (Amplitude)	P1 P1	
		P1	3
10 (b)	-2	N1	1

11	(a) Pernyataan kerana boleh dibuktikan kebenaran atau kepalsuannya. <i>Statement because it can be proved to be true or false.</i> (b) Palsu <i>False</i> (c) Jika $m + 3 \leq 2m - 9$, maka $m \geq 12$ If $m + 3 \leq 2m - 9$, then $m \geq 12$ (d) Jika $8 - 2 \times 3 \neq 18$, maka $2 \times 3 \neq 6$ If $8 - 2 \times 3 \neq 18$, then $2 \times 3 \neq 6$ (e) Luas permukaan lima kon yang sama ialah The surface area of five equal cones is $5[\pi (7)(7 + 13)] \text{ cm}^2 = 700 \pi \text{ cm}^2$ (f) $3n + 2(n - 1)^2$, $n = 1, 2, 3, 4, \dots$	P2 P1 P1 P1 K1N1 P2	9
12	(a) $V = \{P, Q, R, S, T, U\}$ $n(V) = 6$ (b) $E = \{(P, P), (P, Q), (P, R), (Q, R), (R, S), (S, T), (T, S)\}$ $n(E) = 7$ (c) $d(V) = 2(7) = 14$ (d) $P \rightarrow Q \rightarrow R \rightarrow S$ (e) $P \rightarrow S$ (f) Laluan $P \rightarrow Q \rightarrow S$ kerana boleh jimat RM35 dan beza masa ialah sembilan minit sahaja berbanding laluan $P \rightarrow S$. <i>The $P \rightarrow Q \rightarrow S$ route because it can save RM35 and the time difference is only nine minutes compared to the $P \rightarrow S$ route.</i>	P1 P1 P1 P1 P1 P2	9

13(a)	Jumlah pendapatan tahunan <i>Total annual income</i> = RM4 200 × 12 + RM2 100 = RM52 500 Pendapatan bercukai <i>Chargeable income</i> = RM52 500 – RM150 – (RM9 000 + RM3 500 + RM7 000 + RM2 650 + RM125) = RM30 075	K1	
		N1	2
13(b)	Cukai bagi RM20 000 pertama <i>Tax on the first RM20 000</i> = RM150 Cukai atas baki berikutnya <i>Tax on the next balance</i> = $\frac{3}{100} \times (RM30\,075 - RM20\,000)$ = RM302.25 Rebate yang layak / <i>Eligible rebate</i> = RM400 + RM30 = RM430 Cukai pendapatan / <i>Income tax</i> = RM150 + RM302.25 – RM430 = RM22.25	K1	
		K1 N1	3

13(c)	Jumlah PCB yang dipotong / <i>Total PCB deducted</i> $= \text{RM}18.50 \times 12$ $= \text{RM}222$ Lebih potongan PCB / <i>Excess deduction of PCB</i> $= \text{RM}222 - \text{RM}22.25$ $= \text{RM}199.75$ Cukai yang perlu dibayar < PCB. Maka, Encik Halim akan menerima lebih potongan PCB sebanyak RM199.75 yang dipulangkan oleh pihak LHDN. <i>Tax payable < PCB. Thus, Mr Halim will receive excess deduction of PCB of RM199.75 refunded by IRB.</i>	K1	
		K1	
		N1	3
14(a)		K1	1
14(b) (i)	U : Pembesaran pada pusat <i>K</i> dengan faktor skala 2 <i>Enlargement about the centre K with scale factor 2</i>	P3	
	V : Putaran 90° ikut arah jam pada pusat (6, 1) <i>Rotation of 90° clockwise at the centre (6, 1)</i>	P3	6
14(b) (ii)	$2^2 \times 60 - 60 \text{ or equivalent}$ 180	K2	
		N1	3

15(a)	$26 - (1.25 \times 16)$ or 6 $\frac{6}{\frac{1}{2}}$ 12	K1 K1 N1	 3
15(b)	$\frac{26}{\frac{150}{60}} / \frac{6}{2.5}$ $10.4 / \frac{52}{5}$	K1 N1	 2
15 (C) (i)(ii)		K2 K2	 4
16 (a)	(a) $x(x + 2)$ or $\frac{1}{2} \times \frac{22}{7} \times (\frac{1}{2}x^2)$ $x(x + 2) + \frac{1}{2} \times \frac{22}{7} \times (\frac{1}{2}x^2) = \frac{435}{7}$ $39x^2 + 56x - 1740 = 0$ $(39x + 290)(x - 6) = 0$ $x = 6$	P1 K1 K1 K1 N1	 5

17 (b)

Bagi mentol jenama Philips

For bulb branded Philips

Jangka hayat (tahun) <i>Lifespan (years)</i>	Kekerapan, f <i>Frequency, f</i>	Titik Tengah, x <i>Midpoint, x</i>	fx	x^2	fx^2
0 - 0.9	5	0.45	2.25	0.2025	1.0125
1.0 - 1.9	7	1.45	10.15	2.1025	14.7175
2.0 - 2.9	16	2.45	39.20	6.0025	96.04
3.0 - 3.9	15	3.45	51.75	11.9025	178.5375
4.0 - 4.9	7	4.45	31.15	19.8025	138.6175
			$\Sigma fx = 134.5$		$\Sigma fx^2 = 428.925$

$$\Sigma fx = 134.5$$

$$\Sigma fx^2 = 428.925$$

Min

$$= \frac{134.5}{50}$$

$$= 2.69$$

Sisihan piawai

$$= \sqrt{\frac{428.925}{50} - (2.69)^2}$$

$$= 1.1586$$

K1

K1

K1

N1

