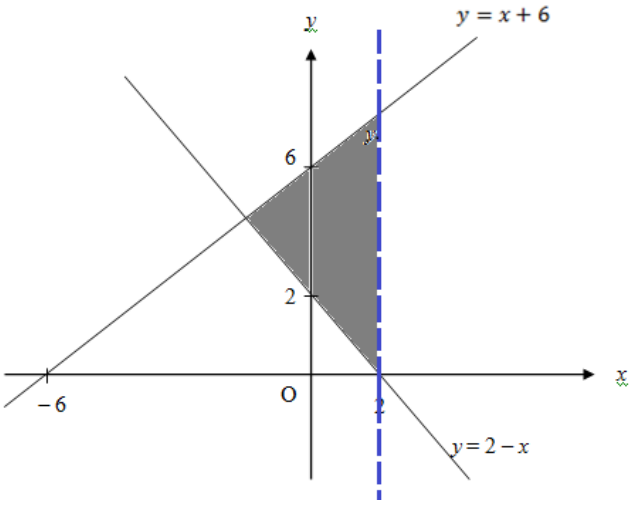
PERATURAN PEMARKAHAN KERTAS 2

Bahagian A

Q		Solution and Mark Scheme	Sub Mark	Mark
1		 i. $y \geq 2-x$ ii. $y \leq x+6$ iii. $x < 2$		3
2		Andaikan / Assume x = epal, y = oren $4x + y = 38$ …… (1) $x-3y = 26$ …… (2) Daripada / From (1), $y = 38 - 4x$ …… (3) Gantikan / Substitute (3) ke dalam / into (2), $x + 3(38 - 4x) = 26$ $x + 114 - 12x = 26$ $x = 8$ Gantikan / Subsitute x = 8 ke dalam / into (3), $y = 38 - 4(8)$ $y = 6$ Jadi, sebiji buahepal = RM8, sebiji buah oren = RM6. Hence, an apple = RM8, an orange = R6.	1 1 1 1	**4**

3		$2t^2 + 2t - 12 = 0$ or equivalent. $(2t - 4)(t + 3) = 0$ or equivalent. OR $t = \frac{-2 \pm \sqrt{(2)^2 - 4(2)(-12)}}{2(2)}$ or equivalent. t= 2 seconds <u>Note:</u> If no final answer is given but both t = 2 s , t = -3 s are seen, award N1.	K1 K1 N2	4
4	a b	$\angle VBD$ $\text{Sin}\angle VBD = \frac{1.5}{2.5}$ $\angle VBD = 36.87^0 / 36^0 52'$	P1 K1 N1	**3**
5	a b c d	Some If x is a factor of 6, then x is a factor of 18. If $x^n + 2$ is a cubic equation, then n = 3 Jika $x^n + 2$ ialah suatu ungkapan kubik, maka n = 3 The 5th term of a numerical sequence is $5(5 - 10) = -25$. <u>Note:</u> If $5(5 - 10) = -25$ only is seen, award N1.	P1 P1 P1 K2	5

6.	a)	$m_{OK} = \frac{6-0}{2-0}$ $= 3$	K1 N1	
	b)	$m_{HJ} = m_{OK} = 3$ $9 = 3(5) + c$ $c = -6$ Persamaan garis lurus *HJ*, $y = 3x - 6$	P1 K1 N1	**5**
7.	a)	*7s*	N1	
	b)	$\frac{12-0}{4-0}$ $= 3\ ms^{-2}$	K1 N1	
	c)	$\frac{1}{2}(4)(12) + 7(12) + \frac{1}{2}(3)(12) = \frac{1}{2}(14)v$ 18	K1K1 N1	**6**
8		$\frac{1}{2}\left(\frac{4}{3} \times \frac{22}{7} \times 3^3\right)$ $122\frac{4}{7} - \frac{1}{2}\left(\frac{4}{3} \times \frac{22}{7} \times 3^3\right)$ Volume of cone = 66 Height of cone = 7 cm	K1 K1 N1 N1	**4**
9	a)	Perimeter seluruh rajah / *Perimeter of the whole diagram* = OB + Pangjang Lengkok BA + AQ + Panjang Lengkok QR + RO = *OB + Arc BA + AQ + Arc QR + RO* $= 10 + \left(\frac{120}{360} \times 2 \times \frac{22}{7} \times 10\right) + (10 - 7) +$ $\left(\frac{90}{360} \times 2 \times \frac{22}{7} \times 7\right) + 7$ = 10 + 20.9524 + 3 + 11 + 7 = 51.95 cm	1 1 1	
	b)	Luas rantau berlorek / *Area of the shaded region* = Luas AOB - Luas POQ + Luas QOR		

		= Area of AOB - Area of POQ + Area of QOR $=\left(\frac{120}{360}\times\frac{22}{7}\times10^2\right)$ - $\left(\frac{30}{360}\times\frac{22}{7}\times7^2\right)+$ $\left(\frac{90}{360}\times\frac{22}{7}\times7^2\right)$ = 104.7619 - 12.8333 + 38.5 = 130.43 cm^2	1 1 1	**6**
10	a)	*m=-10 , n=2*	N1N1	
	b)	$\begin{pmatrix}30 & 20\\ 50 & 40\end{pmatrix}\begin{pmatrix}x\\ y\end{pmatrix}=\begin{pmatrix}140\\ 260\end{pmatrix}$ or $\begin{pmatrix}3 & 2\\ 5 & 4\end{pmatrix}\begin{pmatrix}x\\ y\end{pmatrix}=\begin{pmatrix}14\\ 26\end{pmatrix}$ $\begin{pmatrix}x\\ y\end{pmatrix}=\frac{1}{30(40)-20(50)}\begin{pmatrix}40 & -20\\ -50 & 30\end{pmatrix}\begin{pmatrix}140\\ 260\end{pmatrix}$ $x=2, y=4$	K1 K1 N1N1	**6**
11	a)	{(3,A),(3,6),(3,4),(M,A),(M,6),(M,4),(T,A),(T,6),(T,4),(5.A), (5,6),(5,4) }	P2	
	b)	(i) {(M,A),(T,A)} Probability = $\frac{2}{12}=\frac{1}{6}$ (ii) {(3,A),(3,6),(3,4),(5.A), (5,6), (5,4) } Probability = $\frac{6}{12}=\frac{1}{2}$	P1 N1 P1 N1	**6**