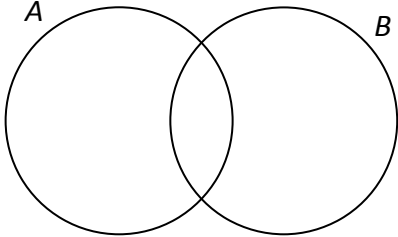
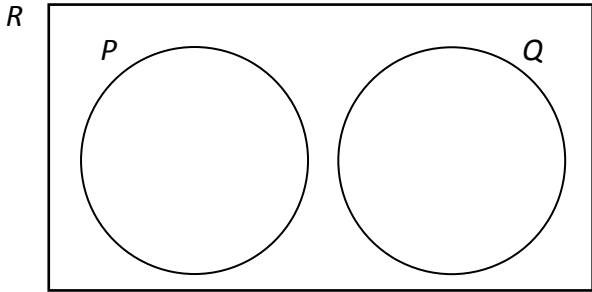


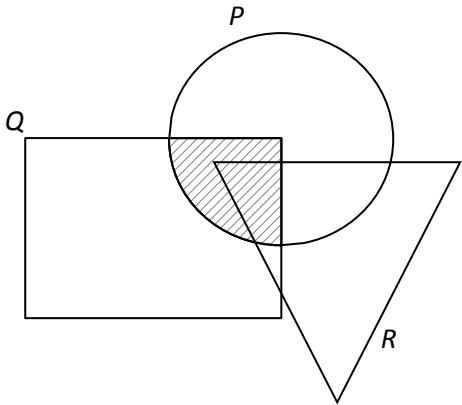
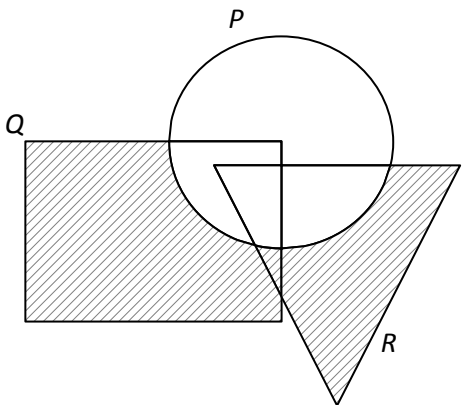
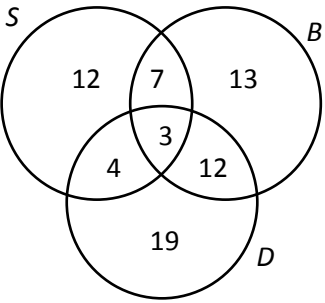
KERTAS 2

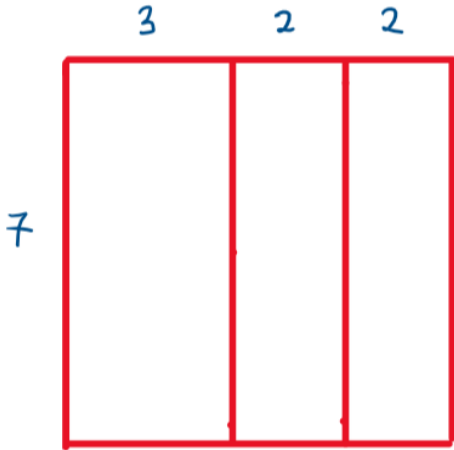
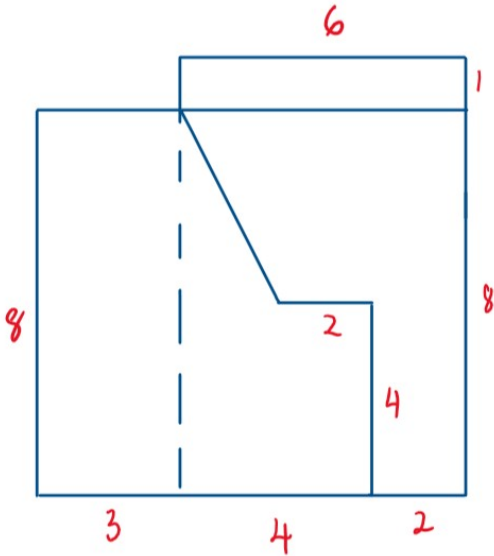
1.	$(1 \times 5^2) + (2 \times 5^0) = 27$ $PQ = QR = RS = \frac{27}{3} = 9$ $PV = QU = RT = \sqrt{12^2 + 9^2} = 15$ $\text{Perimeter berlorek} = (12 \times 3) + 27 + (15 \times 3) = 108$ $108 = 213_7$	1m 1m 1m 1m
2.	$x^2 + 3x - 4 = 0$ <u>atau</u> setara $(x - 1)(x + 4) = 0$ <u>atau</u> setara $x = 1$ $x = -4$	1m 1m 1m 1m
3.	(a) (i) Benar	1m
	(ii) Palsu	1m
	(b) Implikasi 1: Jika $m > n$ maka $m + 1 > n + 1$ Implikasi 2: Jika $m + 1 > n + 1$ maka $m > n$	1m 1m
4.	(a) 	1m
	(b) 	2m

5.	$\begin{aligned} x + 2y &= 8 \quad \text{--- ①} \\ 3x + 4y &= 12 \quad \text{--- ②} \end{aligned}$ ① Parab 3 $\begin{aligned} 3x + 6y &= 24 \quad \text{--- ③} \\ 3x + 4y &= 12 \quad \text{--- ②} \end{aligned}$ ③ Tolak ② $\begin{aligned} 2y &= 12 \\ y &= 6 \end{aligned}$ Substitusikan $y = 6$ ke dlm ① $\begin{aligned} x + 2y &= 8 \\ x + 2(6) &= 8 \\ x &= 8 - 12 \\ x &= -4 \end{aligned}$ $\therefore x = -4, y = 6$	1m 1m 1m 1m
6.	$\begin{aligned} \frac{OV}{OP} &= \frac{2}{3} \\ \frac{OV}{12} &= \frac{2}{3} \\ OV &= 12 \left(\frac{2}{3} \right) \\ PV &= 8 \end{aligned}$ Luas UTS  $= \frac{1}{2} \times \frac{22}{7} \times 8^2$ $= 100 \frac{4}{7} @ 100.57$ Luas POK  $= \frac{125}{360} \times \frac{22}{7} \times 12^2$ $= 157 \frac{1}{7} @ 157.14$ Luas  $= \frac{22}{360} \times \frac{22}{7} \times 12^2$ $= 30 \frac{46}{63} @ 30.73$ $\therefore$ Luas Kaw. Balok $= 100 \frac{4}{7} + 157 \frac{1}{7} - 30 \frac{46}{63}$ $= 226 \frac{62}{63} @ 226.98$	1m 1m 1m

7.	(a)	$\left[\frac{1}{2} \times (v+20) \times 10 \right] + (15 \times 20) + \left(\frac{1}{2} \times 20 \times 5 \right) = 525$ $v = 15$	2m 1m
	(b)	Kadar perubahan laju 5s terakhir: $\frac{20-0}{25-30} = -4 \text{ m s}^{-2}$ Motosikal itu memperlahankan kelajuannya (nyahpecutan) selama 5 saat pada kadar 4 ms^{-2} sehingga mencapai kelajuan 0 ms^{-1} iaitu sehingga motosikal itu berhenti.	2m
8.	(a)	$Q_2 = \frac{1}{2} \times 40 = \text{Cerapan ke } 20$ Median, $Q_2 = 5$ $Q_1 = \frac{1}{4} \times 40 = \text{Cerapan ke } 10 \rightarrow Q_1 = 4$ $Q_3 = \frac{3}{4} \times 40 = \text{Cerapan ke } 30 \rightarrow Q_3 = 6$ Julat antara kuartil, $Q_3 - Q_1 = 2$	1m 1m 1m 1m 1m
9.	(a)		2m
	(b)	$\left(\frac{7}{12} \times \frac{5}{11} \right) + \left(\frac{5}{12} \times \frac{4}{11} \right) = \frac{5}{12}$	1m 1m
10.	(a)	Jumlah pendapatan = $3\,500 + 600 = \text{RM}4\,100$	1m

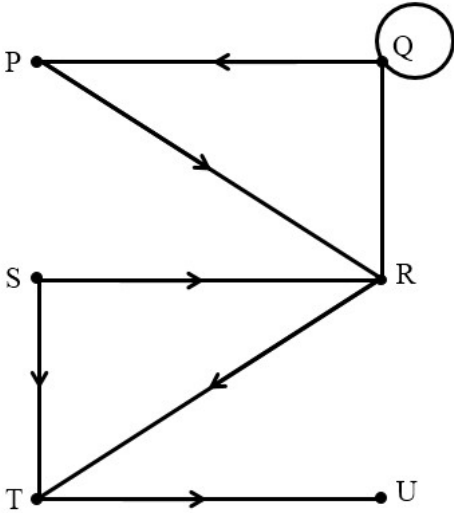
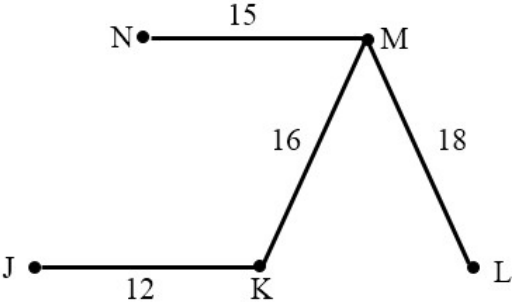
		Jumlah perbelanjaan = $1\,200 + 500 + \left(\frac{90}{100} \times 500\right) = \text{RM}2\,150$ Aliran Tunai = $4\,100 - 2\,150 = \text{RM}1\,950$	1m
	(b)	Dewi bijaksana dalam menguruskan kewangan. Walaupun perbelanjaan tidak tetapnya meningkat sebanyak 90%, namun aliran tunai Dewi masih lagi aliran positif.	1m

11.	(a)	(i)			1m
		(ii)			2m
	(b)	(i)			3m
		(ii)	(a)	12	1m
			(b)	$4 + 3 + 12 + 19 = 38$	1m
			(c)	$13 + 12 + 19 = 44$	1m

12.	(a)	 1. Bentuk BETUL (garis solid) 1m 2. Ukuran dan Sudut Tepat 2m 3. Lukisan Kemas 1m	4m
	(b)	 1. Bentuk BETUL (garis solid) 1m 2. Garisan BETUL (garis -----) 1m 3. Ukuran dan Sudut Tepat 2m 4. Lukisan Kemas 1m	5m

13.	(a)	(i)	$y \leq 2x - 5$ $-4 \leq 2(1) - 5$ $-4 \leq -3$ $y \leq 2x - 5$	1m 1m
		(ii)	$y \leq 2x - 5$ $1 \leq 2(3) - 5$ $1 \leq 1$ $y \leq 2x - 5$	1m 1m
		(iii)	$y \leq 2x - 5$ $2 \leq 2(-2) - 5$ $2 \leq -9$ $y \leq 2x - 5$	1m 1m
	(b)	$2x + y \leq 4$ $2y \leq x$ $y \leq 2x + 2$	1m 1m 1m	

14.	(a)	(i)			Kesudahan putaran cakera <i>B</i>			2m
					<i>Outcomes of disc B spun</i>			
					R	S	T	
			Kesudahan putaran cakera <i>A</i> <i>Outcomes of disc A spun</i>	1	(1, R)	(1, S)	(1, T)	
				2	(2, R)	(2, S)	(2, T)	
				3	(3, R)	(3, S)	(3, T)	
				4	(4, R)	(4, S)	(4, T)	
				5	(5, R)	(5, S)	(5, T)	
6	(6, R)	(6, S)	(6, T)					
		(ii)	{(1,R), (2,R),(3,R),(4,R),(5,R),(6,R)}					1m
			$\frac{1}{3}$					1m
		(iii)	{(1,R), (3,R),(5,R),(1,S),(3,S),(5,S), (1,T),(3,T),(5,T),(2,S),(4,S), (6,S)}					1m
			$\frac{2}{3}$					1m
	(b)	(i)	$\frac{9}{18} = \frac{1}{2}$					1m
		(ii)	$\frac{6}{9} \times \frac{5}{8}$					1m
			$\frac{5}{12}$					1m

15.	(a)	(i)	$\{(A,B), (A,C), (A,D), (A,D), (B,B), (B,C), (C,D)\}$	1m
		(ii)	$\sum d(V) = 2E$ $= 2(7)$ $= 14$	1m 1m
	(b)			2m
	(c)	 Jumlah p $= 12 + 16 + 15 + 18$ $= 61$		2m 1m 1m

16.	(a)	(i)		2m
		(ii)	$m = 130$ $n = 90$	1m 1m
		(iii)	$\frac{200}{\left(\frac{195}{60}\right)}$ 61.54	1m 1m
		(iv)	$\frac{200}{\left(\frac{120}{60}\right)}$ 100	1m 1m
		(v)	Perjalanan pulang ke rumahnya lebih berisiko kerana beliau memandu lebih laju dan tidak berhenti rehat sepanjang perjalanannya.	1m
	(b)	(i)	$y = \frac{-x^2}{2} + 2x$ Lebar pada permukaan tanah, $y = 0$ $0 = \frac{-x^2}{2} + 2x$ $x^2 - 4x = 0$ $x(x - 4) = 0$ $x = 0, x = 4$ Lebar = $4 - 0 = 4\text{m}$	1m 1m 1m 1m
		(ii)	<i>Persamaan paksi simetri</i> $x = \frac{-b}{2a} = \frac{-(-4)}{2(1)} = 2$ <i>Tinggi maksimum</i> , $y = \frac{-(2)^2}{2} + 2(2) = 2\text{ m}$	1m 1m

			Atau setara	

17.	(a)	(i)	$24_8 = (2 \times 8^1) + (4 \times 8) = 20$ $74_8 = (7 \times 8^1) + (4 \times 8) = 60$ RM 80	1m
				1m
				1m
		(ii)	$\frac{120}{100} \times 20 = RM\ 24$ $\frac{120}{100} \times 60 = RM\ 72$	1m
				1m
	(b)	(i)	P = 7500 Q = 5300 R = 2100 S = 100	1m
				1m
				1m
				1m
		(ii)	Aliran Tunai = 100 Aliran tunai positif. Ini menunjukkan bahawa perniagaan Azliza memberi pulangan keuntungan bukannya kerugian.	1m
				1m
	(c)	(i)	$V = 400000 (1.04)^5$ $V = RM\ 486661.16$	1m
				1m
		(ii)	$400000 (1.04)^{10} - 4000000$ Rm 192097.71	1m
				1m