



**MODUL PINTAS
TINGKATAN 5**

1449/2

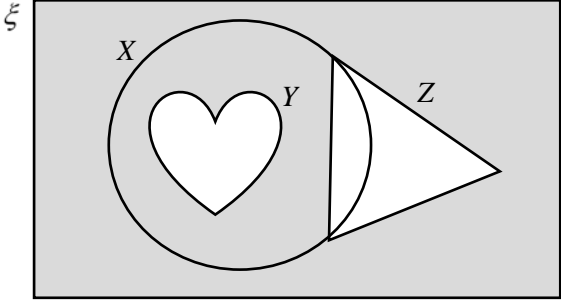
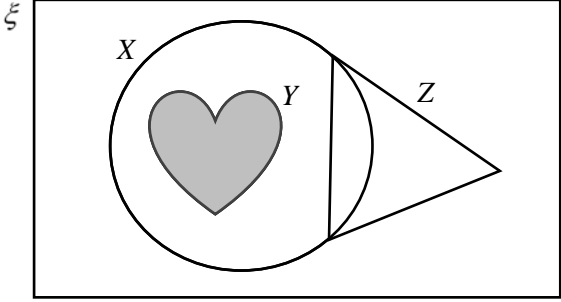
**MATEMATIK
Kertas 2**

$2\frac{1}{2}$ jam

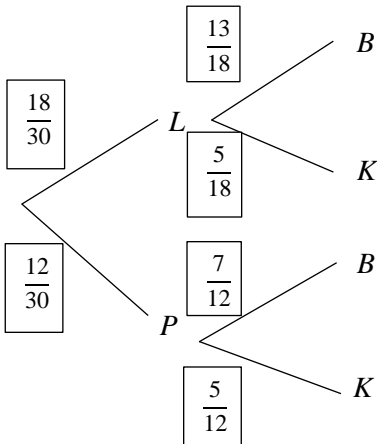
Dua jam tiga puluh minit

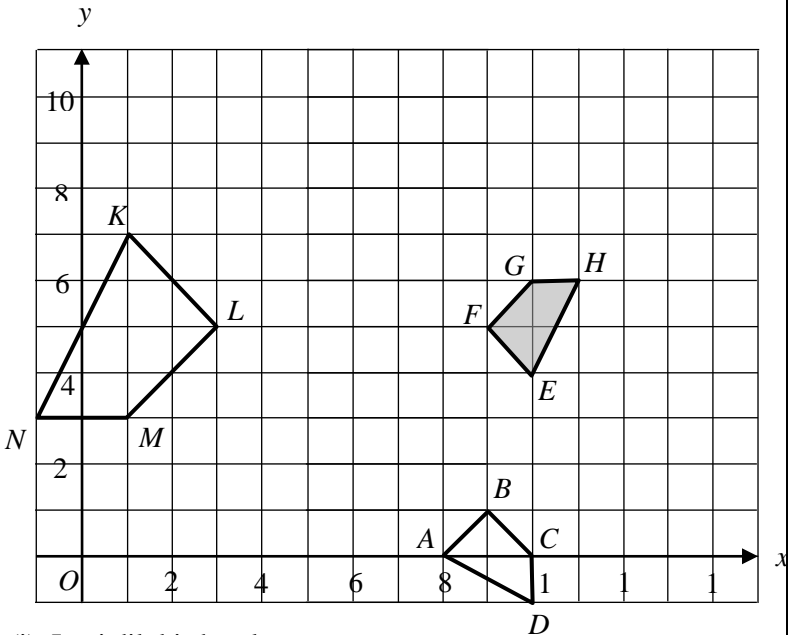
**PERATURAN PEMARKAHAN
MATEMATIK K2**

1449/2

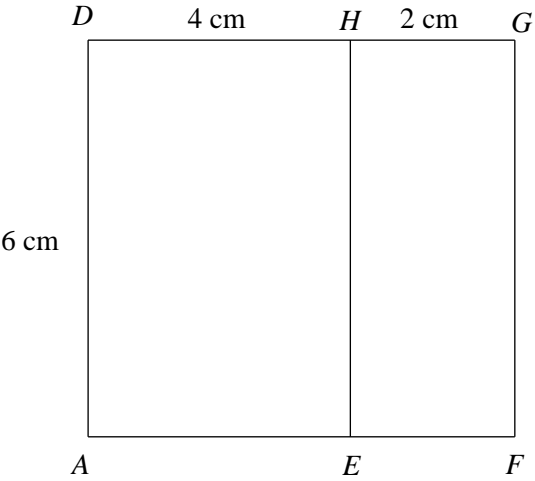
Soalan Question	Cadangan Jawapan Suggested Answer	Markah Marks	Jumlah Total
4	<p>(a) $5 + 3x + 6 + (4x + 1) = 9 + (10x - 3)$</p> <p>$x = 2$</p> <p>(b) (i) $(Y \cup Z)'$</p>  <p>(ii) $(X \cap Z)' \cap Y$</p>  <p>Nota: $(X \cap Z)'$ dilihat beri 1 markah. Note: $(X \cap Z)'$ seen award 1 mark.</p>	<p>1</p> <p>1</p> <p>1</p> <p>2</p>	<p>5</p>

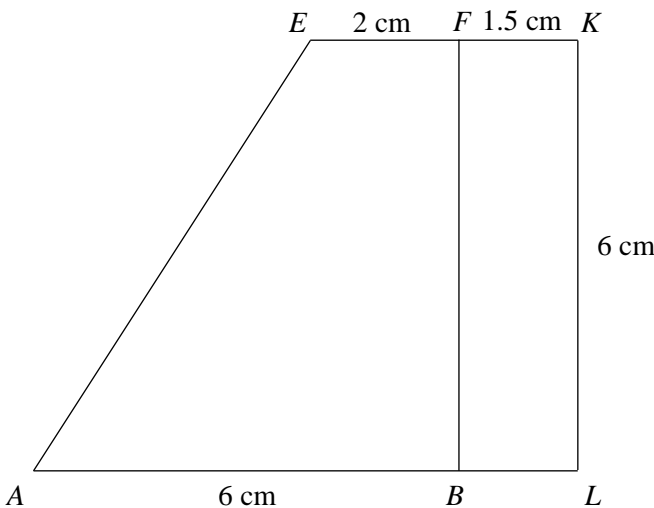
Soalan Question		Cadangan Jawapan Suggested Answer	Marka h Marks	Jumlah Total
5	(a)	3 500 + 800 – 2 350 – 1 000 atau / or 950	1	4
	(b)	3 675 – (2 350 + 1 000) × 110% atau setara / or equivalent. –10	1 1	
		Aliran tunai negatif / pendapatan deficit atau setara. <i>Negative cash flow / deficit income or equivalent.</i>	1	
6	(a)	$t \propto \frac{x}{y}$	1	5
	(b)	$1 = k \left(\frac{1500}{15} \right)$	1	
		$t = 0.01 \left(\frac{x}{y} \right)$ atau / or $t = \frac{x}{100y}$	1	
	(c)	$0.01 \left(\frac{1000}{5} \right)$ atau / or $\frac{1}{100} \left(\frac{1000}{5} \right)$	1	
	120	1		
7		$339.10 + \left(\frac{66000 - 1000}{1000} \times 26 \right)$ atau setara / or equivalent	1	3
		$\left(339.10 + \left(\frac{66000 - 1000}{1000} \times 26 \right) \right)^* - \frac{30}{100} \left(339.10 + \left(\frac{66000 - 1000}{1000} \times 26 \right) \right)^*$	1	
		atau setara / or equivalent 1420.37	1	
8	(a)	17	1	4
	(b)	(i) $\frac{1}{2} (36 + s) \left(\frac{12}{60} \right) = 9$ atau setara / or equivalent	1	
		54	1	
	(ii) $\frac{54}{13}$	1		

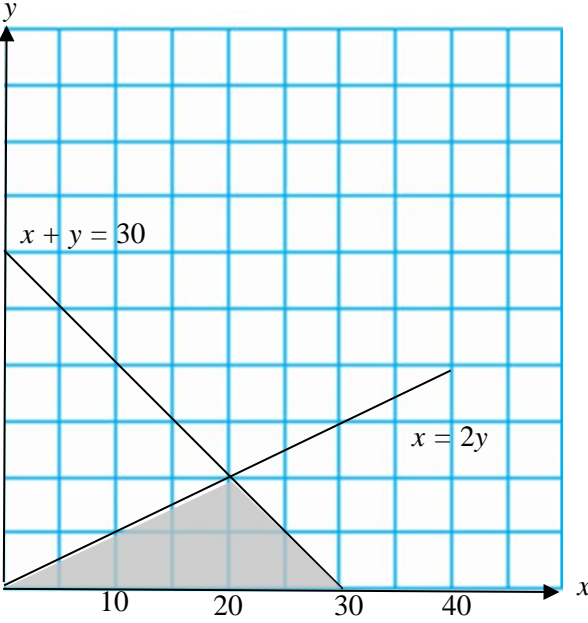
Soalan Question	Cadangan Jawapan Suggested Answer	Markah Marks	Jumlah Total
9	<p>(a) $(h-5)^2 + (-2-4)^2 = (h+1)^2 + (-2-4)^2$ atau setara / or equivalent</p> <p>2</p> <p>(b) $\frac{5-2}{4-(-2)}$ atau / or $\frac{1}{2}$ atau / or $-1 = \frac{1}{2}(4) + c$</p> <p>atau setara / or equivalent</p> <p>$y = \frac{1}{2}x - 3$ atau setara / or equivalent</p>	<p>1</p> <p>1</p> <p>1</p> <p>1</p>	<p>4</p>
10	<p>(a) $s = \sqrt{24^2 + 10^2}$</p> <p>26</p> <p>(b) $\frac{1}{3} \times \frac{22}{7} \times 10^2 \times 24$ atau/or $\frac{22}{7} \times 10^2 \times 20$</p> <p>$\frac{22}{7} \times 10^2 \times 20 + \frac{22}{7} \times 10^2 \times 20$</p> <p>8800</p>	<p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p>	<p>5</p>
11	<p>(a)</p>  <p>$\frac{18}{30}$ atau/or $\frac{3}{5}$ dan/and $\frac{13}{18}$ dan/and $\frac{5}{18}$ atau setara / or equivalent</p> <p>$\frac{12}{30}$ atau/or $\frac{2}{5}$ dan/ and $\frac{7}{12}$ dan/and $\frac{5}{12}$ atau setara/or equivalent</p>	<p>1</p> <p>1</p>	

Soalan Question	Cadangan Jawapan Suggested Answer	Markah Marks	Jumlah Total
11	(b) (i) $\frac{12}{30} \times \frac{5}{12}$ atau / or $\frac{2}{5} \times \frac{5}{12}$ $\frac{1}{6}$	1	8
	(ii) $\left(\frac{18}{30} \times \frac{13}{18}\right) + \left(\frac{12}{30} \times \frac{7}{12}\right)$ $\frac{2}{3}$	1	
	(iii) $1 - \frac{2}{3}$ atau setara / or equivalent $\frac{1}{3}$	1	
12	(a) (i) (7, -2) (ii) (9, 5) Nota: Jika (10, 2) dilihat beri 1 markah Note: If (10, 2) seen award 1 mark	1 2	
	(b)  (i) Imej dilukis betul <i>Correct image drawn</i>	1 3 1 1	9

Soalan Question	Cadangan Jawapan Suggested Answer	Markah Marks	Jumlah Total						
14	(a) <table border="1" data-bbox="358 258 704 331"> <tr> <td>x</td> <td>-4.5</td> <td>-1</td> </tr> <tr> <td>y</td> <td>6.88</td> <td>6</td> </tr> </table>	x	-4.5	-1	y	6.88	6	1, 1	
x	-4.5	-1							
y	6.88	6							
	(b) Kedua-dua paksi dilukis dalam arah yang betul dengan skala seragam untuk $-6 \leq x \leq 2$ dan $-5 \leq y \leq 8$. <i>Axes are drawn in correct direction and uniform scale for $-6 \leq x \leq 2$ and $-5 \leq y \leq 8$.</i> *9 titik diplot dengan betul. <i>*9 points are plotted correctly.</i> Nota/Note: 8 atau 7 titik diplot dengan betul, beri 1 markah. <i>8 or 7 points are plotted correctly, award 1 mark.</i> Graf yang licin, bersambung dan melalui semua titik. <i>Smooth graph, continuous curve and passing through all points.</i>	1 2 1							
	(c) (i) $-5.5 \leq x \leq -5.3$ $-0.7 \leq x \leq -0.5$ (ii) 8	1 1 1	9						

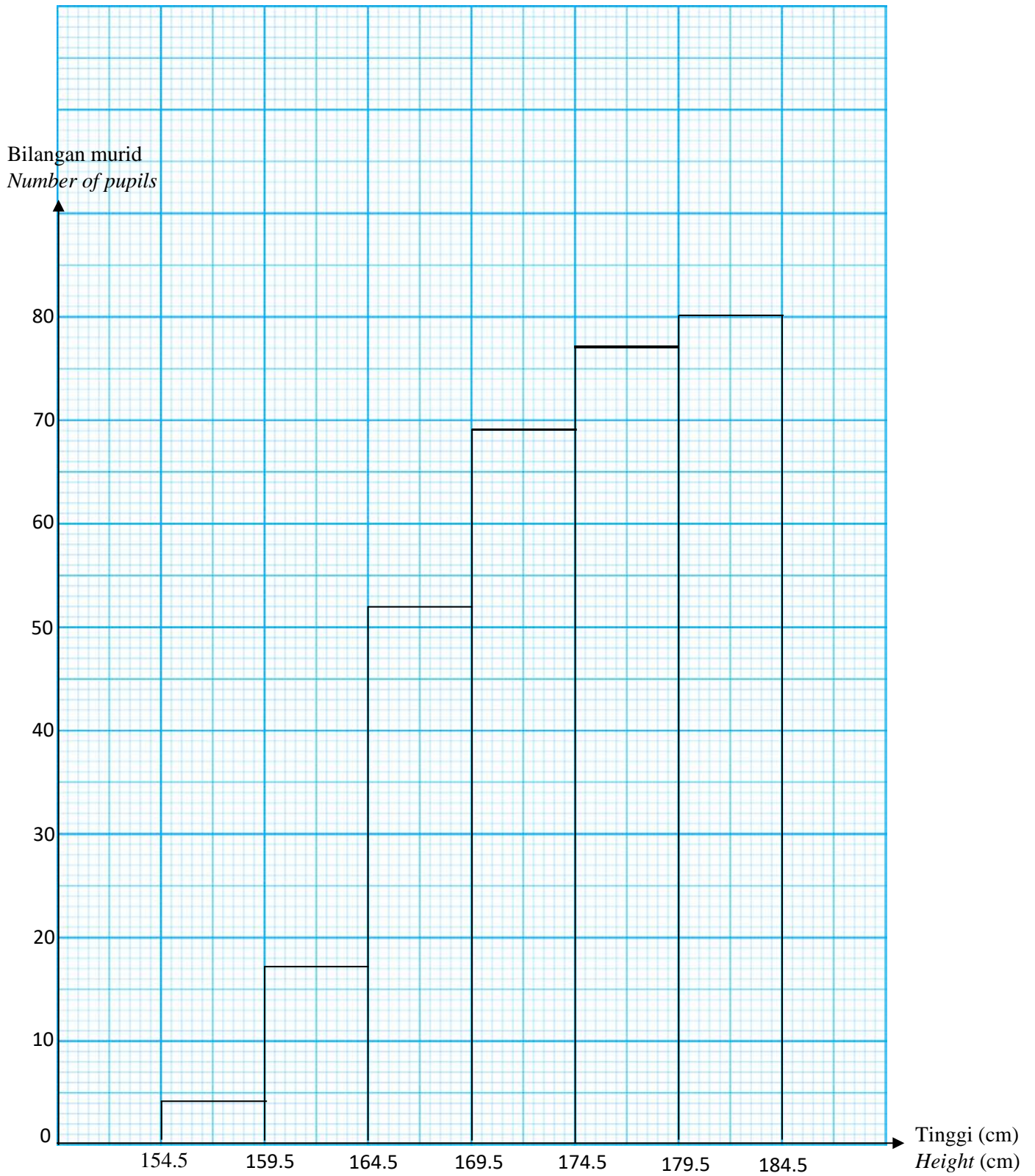
Soalan Question	Cadangan Jawapan Suggested Answer	Markah Marks	Jumlah Total
15	<p>(a)</p>  <p>Bentuk betul bagi segiempat $ADHE$ dan $EHGF$. Semua garisan padu tebal. <i>Correct shape of rectangle $ADHE$ and $EHGF$. All solid lines.</i></p> <p>$AF = AD > DH > HG$</p> <p>Ukuran betul kepada ± 0.2 cm dan semua sudut pada bucu $90^\circ \pm 1^\circ$. <i>Measurement corrects to ± 0.2 cm and all angle at the vertices $90^\circ \pm 1^\circ$.</i></p>	1 1 1	

Soalan Question	Cadangan Jawapan Suggested Answer	Markah Marks	Jumlah Total
15	<p>(b) (i)</p>  <p>Bentuk betul bagi trapezium $ABFE$ dan segi empat tepat $BLRF$. Semua garisan padu. <i>Correct shape of trapezium $ABFE$ and rectangle $BLRF$. All solid lines.</i></p> <p>$AL > KL > EF > FK$</p> <p>Ukuran betul kepada ± 0.2 cm dan semua sudut pada bucu $90^\circ \pm 1^\circ$. <i>Measurement corrects to ± 0.2 cm and all angle at the vertices $90^\circ \pm 1^\circ$.</i></p>	1 1 2	
	<p>(ii)</p> <p>$\frac{1}{2} \times 2 \times \frac{22}{7} \times 1.5 \times 6$ atau /or $\frac{1}{2} \times 2 \times \frac{22}{7} \times 1.5^2$ atau setara /or equivalent</p> <p>$\frac{1}{2} \times 2 \times \frac{22}{7} \times 1.5 \times 6 + \frac{1}{2} \times 2 \times \frac{22}{7} \times 1.5^2$</p> <p>35.36</p>	1 1 1	10

Soalan Question	Cadangan Jawapan Suggested Answer	Markah Marks	Jumlah Total
16	<p>(a)</p> $70A + 90B = 1\,780 \quad \text{atau setara /or equivalent}$ $140A + 60B = 2\,120$ $\begin{bmatrix} 70 & 90 \\ 140 & 60 \end{bmatrix} \begin{bmatrix} A \\ B \end{bmatrix} = \begin{bmatrix} 1780 \\ 2120 \end{bmatrix}$ $\begin{bmatrix} A \\ B \end{bmatrix} = \frac{1}{(70 \times 60) - (90 \times 140)} \begin{bmatrix} 60 & -90 \\ -140 & 70 \end{bmatrix} \begin{bmatrix} 1780 \\ 2120 \end{bmatrix}$ <p>$A = 10$ $B = 12$</p>	<p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p>	
	<p>(b) (i) $x + y \leq 30$</p> <p>$x \geq 2y$</p>	<p>1</p> <p>1</p>	
	<p>(ii)</p>  <p>Nota :</p> <p>Garis lurus / <i>straight line</i> $x + y \leq 30$</p> <p>Garis lurus / <i>straight line</i> $x \geq 2y$</p> <p>Paksi dilukis pada arah yang betul dan skala yang seragam <i>Axes labelled drawn in correct direction in uniform scale.</i></p> <p>Lorek dalam kawasan yang betul <i>shaded at the correct area</i></p>	<p>1</p> <p>1</p> <p>1</p> <p>1</p>	

Soalan Question	Cadangan Jawapan Suggested Answer	Markah Marks	Jumlah Total
16	<p>(c) $(0.60 \times 8\,000)$ atau / or (2×150) atau/or $(0.65 \times 8\,000)$ atau/ or</p> $\left(\frac{3.5}{100} \times 4\,800\right) \quad \text{atau /or} \quad \left(\frac{3.8}{100} \times 5\,200\right)$ <p>$5\,350 - (0.60 \times 8\,000) + (2 \times 150) + \left(\frac{3.5}{100} \times 4\,800\right)$ atau / or</p> $5\,800 - (0.65 \times 8\,000) + (250) + \left(\frac{3.8}{100} \times 5\,200\right)$ <p>RM1 018 dan/and RM3 226.</p> <p>Berjaya Maju memberikan nilai pulangan yang lebih tinggi. <i>Berjaya Maju gave the higher return on investment.</i></p> <p>Nota/Note: 1 markah diberi pada salah satu pengiraan Bestari Holding atau Berjaya Maju. <i>Award 1 mark for either calculation on investment of Bestari Holding or Berjaya Maju.</i></p>	<p>1</p> <p>1</p> <p>1</p> <p>1</p>	15
17	<p>(a) $(1 \times 8^5) + (2 \times 8^4) + (7 \times 8^3) + (7 \times 8^2) + (1 \times 8^1)$ $(3 \times 5^6) + (2 \times 5^5) + (3 \times 5^4)$ RM45 000 dan/and RM55 000 Traktor A / <i>Tractor A</i></p> <p>(b) (i) $15x^2 \times 0.05 = 300$ atau setara / or equivalent 20 (ii) $(RM1\,200 \times 12)$ atau /or RM14 400 $\frac{720}{14\,400} \times 100\%$ atau setara /or equivalent 5%</p> <p>(c) $(2\,755 - 2\,500) (1.60)$ $840 + (2\,755 - 2\,500) (1.60)$ 1248</p>	<p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p>	15
	<p>(d) $\sqrt{75}$ atau setara / or equivalent $\frac{1}{2} \times \sqrt{75} \times 10$ atau/ or $\frac{1}{2} \times \sqrt{75} \times 10 \times 6$ 260</p>	<p>1</p> <p>1</p> <p>1</p>	15

Graf untuk soalan 13(b)
Graph for question 13(b)



Graf untuk soalan 14(b)
Graph for question 14(b)

