

PEPERIKSAAN PERTENGAHAN TAHUN 2024
TINGKATAN 5
MATEMATIK

MODUL

A

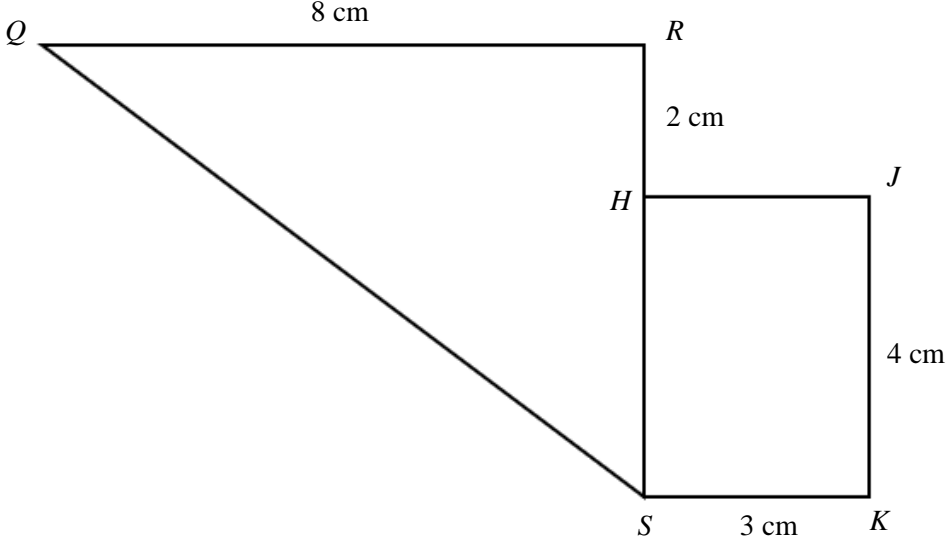
PERATURAN PEMARKAHAN

KERTAS 1

1 C	11 D	21 D	31 C
2 D	12 B	22 D	32 D
3 C	13 A	23 C	33 A
4 C	14 A	24 D	34 C
5 B	15 A	25 B	35 B
6 C	16 C	26 A	36 D
7 D	17 B	27 B	37 D
8 B	18 A	28 A	38 A
9 C	19 C	29 A	39 B
10 B	20 C	30 C	40 B

KERTAS 2

1.	(a)	Pepenjuru <u>atau</u> hipotenus	1m
	(b)	$\sqrt{80^2 + 50^2}$ 94.34	1m 1m
2.	(a)	7	1m
	(b)	$(6 \times 7^2) + (1 \times 7) + 5$ 306	1m 1m
3.	(a)	$C = \frac{kN}{T}$	1m
	(b)	$700 = \frac{k(5)}{4}$ <u>atau</u> $k = 560$	1m
		$C = \frac{560(8)}{3.5}$ 1280	1m 1m
4.	(a)	895 Aliran tunai positif	1m 1m
	(b)	$\frac{30000}{24}$ <u>atau</u> 1 250 Kurangkan perbelanjaan melancong <u>Nota:</u> Terima semua jawapan yang munasabah	1m 1m
5.	(a)	$2 \times \frac{22}{7} \times 380000$ 2 388 571.43	1m 1m
	(b)	$\frac{\theta}{360} \times 2 \times \frac{22}{7} \times 1500000 = 2 \times \frac{22}{7} \times 380000$ 91.2	1m 1m

6.	(a)	Jika isi padu kubus bukan $x^3 \text{ cm}^3$, maka panjang sisi kubus itu bukan $x \text{ cm}$	1m
	(b)	$(10 - 2) \times 180^\circ$	1m
		1440	1m
7.	<p><i>M</i>:</p> <p>Translasi</p> $\begin{pmatrix} 2 \\ -6 \end{pmatrix}$ <p><i>N</i>:</p> <p>Putaran 90°</p> <p>lawan arah jam</p> <p>pada pusat $(-1, 3)$</p>		<p>1m</p> <p>1m</p> <p>1m</p> <p>1m</p> <p>1m</p>
8.			4m

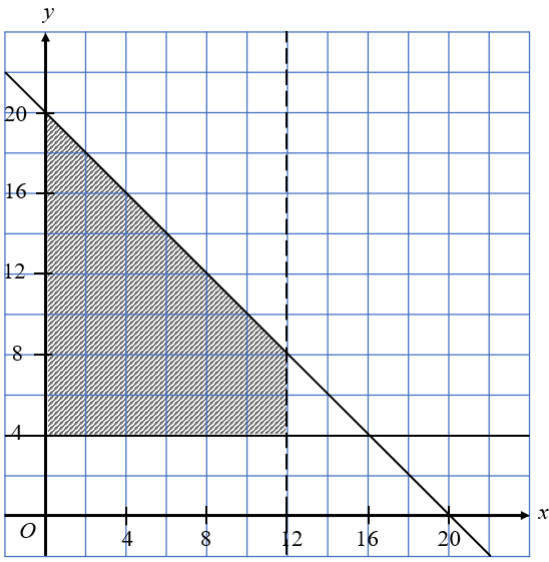
9.	(a)	{(A, S), (A, Y), (N, S), (N, Y), (J, S), (J, Y), (H, W), (H, Z), (R, W), (R, Z), (M, W), (M, Z)}		2m
	(b)	{(A, S), (A, Y), (H, W), (R, W), (M, W)}		1m
		$\frac{6}{12}$ <u>atau</u> $\frac{1}{2}$		1m
	(c)	Palsu Kebarangkalian tidak boleh melebihi 1		1m 1m
10.	(a)	51		1m
	(b)	Julat: 12		1m
		Julat antara kuartil: 17 – 11		1m
		6		1m
11.	(a)	(i)	3×2	1m
		(ii)	4	1m
		(iii)	$\begin{bmatrix} 3 & 6 \\ -6 & -1 \\ -4 & -2 \end{bmatrix}$	1m
	(b)	$5x + 3.4y = 65.50$ <u>atau</u> $2.6x + 7.2y = 74.80$		1m
	$\begin{bmatrix} 5.0 & 3.4 \\ 2.6 & 7.2 \end{bmatrix} \begin{bmatrix} x \\ y \end{bmatrix} = \begin{bmatrix} 65.50 \\ 74.80 \end{bmatrix}$		1m	
	$\begin{bmatrix} x \\ y \end{bmatrix} = \frac{1}{5.0(7.2) - 3.4(2.6)} \begin{bmatrix} 7.2 & -3.4 \\ -2.6 & 5.0 \end{bmatrix} \begin{bmatrix} 65.50 \\ 74.80 \end{bmatrix}$		1m	
	$x = 8$		1m	
	$y = 7.50$		1m	

12.	(a)	$\frac{500000}{1000} \times 2.75$	1m
		$\frac{320000}{1000} \times 2.87$	1m
		$\frac{500000}{1000} \times 2.75 + \frac{320000}{1000} \times 2.87$	1m
		2293.40	1m
(b)	(i)	$\frac{90}{100} \times 515000$ <i>atau</i> 463 500	1m
		$\frac{400000}{463500} \times 220000$	1m
		$\frac{400000}{463500} \times 220000 - 12000$	1m
		177 859.76	1m
	(ii)	$220000 - \left(\frac{400000}{463500} \times 220000 \right)$	1m
		30 140.24	1m

13.	(a)	(i)	Sumber pendapatan kerajaan <i>Jawapan lain:</i> Alat pelaksanaan polisi kerajaan <u>atau</u> kawalan penjualan barangan atau perkhidmatan <u>atau</u> alat kewangan untuk menstabilkan ekonomi	1m
		(ii)	50×0.50	1m
			$280 + (50 \times 0.50)$	1m
	305		1m	
	(b)	(i)	$69\,500 - 800 - 9\,000 - 2\,500 - 5\,300 - 3\,000$	1m
			48 900	1m
(ii)		$\frac{8}{100} \times 13900$ $600 + \frac{8}{100} \times 13900 - 300$ 1 412	1m 1m 1m	

14.	(a)	6		1m
	(b)	(i)	$\frac{1}{2} \times (20+6) \times 4 \text{ atau } 6 \times 5$ $\left[\frac{1}{2} \times (20+6) \times 4 \right] + (6 \times 5)$ 82	1m 1m 1m
		(ii)	$\frac{20-6}{0-4}$ $-\frac{7}{5} \text{ atau } -3.5$	1m 1m
		(iii)	$\frac{27-6}{t-9}$ $\frac{27-6}{t-9} = \frac{7}{2}$ 15	1m 1m 1m

15.	(a)	(i)		1m
		(ii)		2m
	(b)		3m	
	(c)	(i)	$12 + 6 + 2 + 4 + x + 3 + 2x + x - 2 = 65$ 10	1m 1m
	(ii)	33	1m	

16.	(a)	$12 \times 5 \times 10$	1m
		$\frac{22}{7} \times 0.5^2 \times 1.5$	1m
		$\frac{12 \times 5 \times 10}{\frac{22}{7} \times 0.5^2 \times 1.5}$	1m
		510	1m
(b)		$m = -\frac{5}{2}$	1m
		$0 = -\frac{5}{2}(5) + c$	1m
		$y = -\frac{5}{2}x + \frac{25}{2}$	1m
(c)	(i)	P - Q - S - T	1m
		33	1m
	(ii)	$\frac{33}{\left(\frac{42}{60}\right)}$	1m
		47.14	1m
(d)	(i)	$y \geq 4$	1m
	(ii)		3m

17.	(a)	(i)	Tinggi (cm) <i>Height (cm)</i>	Kekerapan <i>Frequency</i>	Titik Tengah <i>Midpoint</i>	1m
			5 – 9	4	7	
			10 – 14	6	12	
			15 – 19	10	17	
			20 – 24	8	22	
			25 – 29	7	27	
			30 – 34	5	32	
	(ii)	$\frac{4(7) + 6(12) + 10(17) + 8(22) + 7(27) + 5(32)}{4 + 6 + 10 + 8 + 7 + 5}$			1m	
		19.88			1m	
	(b)	$m = \frac{4}{9}$ $17 = \frac{4}{9}(9) + c$ $y = \frac{4}{9}x + 13$				1m
	13				1m	
(c)	$x(2x + 1) = 15$ $2x^2 + x - 15 = 0$ $(2x - 5)(x + 3) = 0$ $x = \frac{5}{2} \text{ atau } 2.5$				1m	
					1m	
					1m	
					1m	

	(d)	(i)		2m
		(ii)	2(7)	1m
			14	1m