

**SKEMA JUJ SET 1 2014**

NO	SKEMA	JUMLAH MARKAH
1	<p>(a) <math>\{-6, 3, 7, 8\}</math>                      (b) 7</p>	<p style="text-align: center;"><b>1</b> <b>1</b></p>
2	<p>(a) <math>h = 1</math>                      B1 <math>\frac{4}{h+1} = 2</math></p> <p>(b) <math>m = -\frac{2}{3}</math></p>	<p style="text-align: center;"><b>2</b>  <b>1</b></p>
3	<p><math>k = -5</math>                      B2 <math>2 - k = 3 - 2(3 + k)</math>                      B1 <math>2 - k</math> atau <math>-3 - 2k</math></p>	<p style="text-align: center;"><b>3</b></p>
4	<p><math>p = -6, h = -1</math> [both]                      B2 : <math>p = -6</math> or <math>h = -1</math>                      B1 : SOR = 2 or POR = <math>-6</math></p>	<p style="text-align: center;"><b>3</b></p>
5	<p><math>k = 1 - 2p^2</math>                      B2 : <math>(-4p)^2 - 4(2)(1 - k) = 0</math>                      B1 : <math>2x^2 - 4px + 1 - k = 0</math></p>	<p style="text-align: center;"><b>3</b></p>
6	<p>(a) <math>a &lt; 0</math>                      (b) <math>p = -2</math>                      (c) <math>q = 5</math></p>	<p style="text-align: center;"><b>1</b> <b>1</b> <b>1</b></p>
7	<p><math>x = 4</math>                      B2 : <math>2^x \left[ 2 - \frac{1}{4} \right] = 28</math>                      B1 : <math>2^x \cdot 2^1 - 2^x \cdot 2^{-2} = 28</math></p>	<p style="text-align: center;"><b>3</b></p>

8	$x = \frac{1}{2}$ $\text{B2} : 3x = 1(x+1)$ $\text{B1} : \log_2 \left( \frac{3x}{x+1} \right) = 0$	3
9	$h = \frac{4}{\sqrt{k}}$ $\text{B3} : h^2 k = 2^4$ $\text{B2} : \log_2 h^2 k = 4$ $\text{B1} : \log_2 h + \frac{\log_2 k}{2} = 4$	4
10	<p>(a) <math>k = 1</math></p> $\text{B1} : 5 - (2k - 3) = 5k + 6 - (5)$ <p>(b) <math>T_{10} = 53</math></p> $\text{B1} : a = -1 \text{ or } d = 6$	2  2
11	<p>(a) <math>x = \frac{1}{4}</math></p> <p>(b) 5440</p> $\text{B2} : S_8 = \frac{\frac{1}{4}(4^8 - 1)}{4 - 1} - \left( \frac{1}{4} + 1 + 4 + 16 \right)$ $\text{B1} : a = \frac{1}{4} \text{ or } r = 4$	1  3
12	<p>(a) <math>h = -6</math></p> $\text{B1} : \frac{2-h}{4-0} = 2$ <p>(b) <math>k = -\frac{3}{2}</math></p>	2  1

13	$p = 3t$ $\text{B2 : } h = -\frac{1}{3}t$ $\text{B1 : } p = \frac{3(-3h) + 2(2p)}{5} \text{ or } h = \frac{3(h) + 2(3t)}{5}$	<b>3</b>
14	$143.13^\circ, 323.13^\circ$ $\text{B2 : } 143.13^\circ \text{ or } 323.13^\circ$ $\text{B1 : seen } \tan \theta$	<b>3</b>
15	$\text{(a) } -2i - 9j$ $\text{B1 : } -(-3i + 3j) + (-5i - 6j)$ $\text{(b) } -\frac{2}{\sqrt{85}}i - \frac{9}{\sqrt{85}}j$ $\text{B1 : } \sqrt{85}$	<b>2</b>  <b>2</b>
16	$\text{(a) } k = -1$ $\text{B2 : } a + 2b = 2\lambda a + \lambda(3 - k)b \text{ or } \lambda = \frac{1}{2}$ $\text{B1 : } \overline{PQ} = \lambda \overline{QR}$ $\text{(b) } \overline{PQ} : \overline{QR} = 1 : 2$	<b>3</b>    <b>1</b>
17	$65.07 \text{ cm}^2$ $\text{B2 : } \frac{1}{2}(9)^2(1.92) - \frac{1}{2}(3)(9)\sin 109.99$ $\text{B1 : } \frac{1}{2}(9)^2(1.92) \text{ or } \frac{1}{2}(3)(9)\sin 109.99$	<b>3</b>

18	<p>(a) <math>\sum x = 48</math></p> <p>(b) <math>k = 8</math>  B1 : <math>\frac{48+3k}{8} = 9</math></p>	<p><b>1</b></p> <p><b>2</b></p>
19	<p><math>dy = \frac{1}{4} p</math></p> <p>B2 : <math>\frac{dy}{dx} = \frac{-16}{x^3}</math>  B1 : <math>dx = -p</math></p>	<p><b>3</b></p>
20	<p><math>p = 4</math></p> <p>B1 : <math>\frac{dy}{dx} = -2x + 8</math></p>	<p><b>2</b></p>
21	<p><math>t = 3</math></p> <p>B3 : <math>(t+1)(t-3) = 0</math></p> <p>B2 : <math>[t^2 - 2t] - [1 - 2] = 4</math></p> <p>B1 : <math>[x^2 - 2x]_1^t = 4</math></p>	<p><b>4</b></p>
22	<p>1</p> <p>B1 : <math>2 \left[ \frac{3^2}{3-1} - \frac{2^2}{2-1} \right]</math></p>	<p><b>2</b></p>
23	<p>(a) 360</p> <p>(b) 96  B1 : <math>{}^2P_1 \times {}^4P_2 \times {}^4P_1</math></p>	<p><b>1</b></p> <p><b>2</b></p>

24	<p>(a) <math>\frac{11}{14}</math>  B1 : <math>1 - \left(\frac{3}{4} \times \frac{2}{7}\right)</math></p> <p>(b) <math>\frac{9}{70}</math>  B1 : <math>\frac{3}{5} \times \frac{3}{14}</math></p>	<p><b>2</b></p> <p><b>2</b></p>
25	<p>(a) <math>k = 0.93</math></p> <p>(b) <math>k = 1.5</math>  B2 : <math>P(Z &gt; k) = 0.0668</math>  B1 : <math>P(Z &gt; k) + P(Z &lt; -k) = 0.1336</math></p>	<p><b>1</b></p> <p><b>3</b></p>