



**PRAKTIS BESTARI**  
**PROJEK JAWAB UNTUK JAYA (JUJ) 2017**



**SIJIL PELAJARAN MALAYSIA**

**3472/1**

**ADDITIONAL MATHEMATICS**

**Kertas 1 / Set 2**

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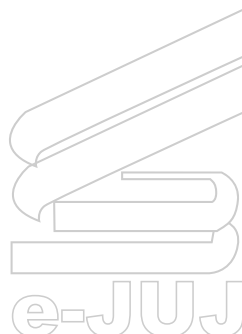
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**PERATURAN PEMARKAHAN**

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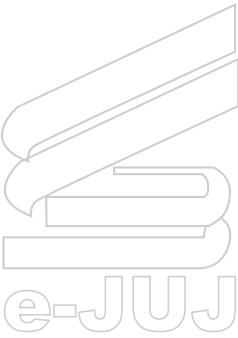
Peraturan Pemarkahan ini mengandungi 5 halaman bercetak



**PERATURAN PEMARKAHAN SET 2 KERTAS 1**

No	Peraturan Pemarkahan	Markah	Jumlah Markah
1	(a) 1 (b) 2 B1: $5 - x = 3$	1 2	3
2	$h = \frac{3}{2}k$ B1 : $5^{2h} = 5^{3k}$	2	2
3	$x = 0.730$ B2: $1 - 2x = -0.631x$ OR $x \log \frac{2}{9} = \log \frac{1}{3}$ B1: $\frac{1-2x}{-x} = 0.631$ OR $\frac{2^x}{3^{2x}} = \frac{1}{3}$	3 2 1	3
4	$4x + 6y - 12$ B3 : $\frac{2\log_2 p + 3\log_2 q - 6}{\frac{1}{2}}$ B2 : $\frac{\log_2 p^2 + \log_2 q^3 - \log_2 64}{\log_2 \sqrt{2}}$ B1 : $\log_2 p = x$ atau $\log_2 q = y$	4	4
5	(a) $p = -4$ (b) $x = 6$ and $x = -2$ B2: $x = 6$ or $x = -2$ or $(x-2) = \pm\sqrt{16}$ B1: $(x-2)^2 = 16$	1 3	4
6	11 B1 : $g(2) = 8$ or $hg(2) = 2(8) - 5$	2	2
7	(a) $f^{-1}(x) = \frac{750-x}{10}$ (b) Pada bulan ke 36 B1: $750 - 10x < 400$ OR $x > 35$	1 2	3

8	$h = -2, k = -3$ B2: $g^{-1}(x) = \frac{-2x+k}{x-4}$ OR $h = -2$ or $k = -3$ B1: $\frac{4y+k}{y+2} = x$ OR $y = \frac{-2x+k}{x-4}$	3	3
9	(a) $k = 3$ (b) $x = 3$ (c) $(3, 2)$	1 1 1	3
10	$r = 3$ B2: $r = 2k - 1$ atau $r = 2(2) - 1$ B1: $f(x) = (x - 4k)^2 + 4k^2 + 1$	3	3
11	(a) $x = 1,$ B1: $d = 7 - 4$ $= 3$ (b) 61, 64, 67	2	2
12	(a) $x = 28$ B1: $\frac{x-4}{x+8} = \frac{x-12}{x-4}$ (b) $r = \frac{2}{3}$	2 1	3
13	(a) 0.0000000036 or $3.6 \times 10^{-9}$ B1: $0.36(0.01)^4$ (b) $\frac{4}{11}$ B1: $\frac{0.36}{1-0.01}$ or $r = 0.01$	2 2	4
14	$p = 3$ and $q = -\frac{3}{4}$ B3: $p = 3$ or $q = -\frac{3}{4}$ B2: $m = 4$ and $y - \text{int} = p$ B1: $xy^2 = 4x^3 + p$	4	4

15	<p>(a) <math>P(1,3)</math></p> <p>B1: <math>x=1</math> dan <math>y=3</math></p> <p>(b) <math>y = \frac{3}{2}x + \frac{3}{2}</math> or equivalent</p> <p>B1: <math>m = \frac{3}{2}</math></p>	2	4
16	<p>(a) <math>6q-12p</math></p> <p>(b) <math>4q+4p</math></p> <p>B2: <math>\frac{2}{3}(6q-12p)+12p</math></p> <p>B1: <math>\frac{2}{3}(BD)+DC</math> OR <math>\vec{EC} = \vec{ED} + \vec{DC}</math></p>	1 3	4
17	<p>5, 5, 7, 8, 10</p> <p>B2 : <math>x + y = 18</math></p> <p>B1 : 5, 5, 7, <math>x, y</math></p>	3	3
18	<p><math>x = 6</math> dan <math>y = 4</math></p> <p>B2 : <math>x = 6</math> atau <math>y = 4</math></p> <p>B1 : <math>\frac{4}{4+x} = \frac{2}{5}</math> atau <math>\frac{6-y}{10-y} = \frac{1}{3}</math></p>	3	3
19	<p>(a) <math>\theta = 1.287 \text{ rad}</math></p> <p>(b) <math>64.35 \text{ cm}</math></p> <p>B1: <math>S_{ACB} = 50(1.287)</math></p>	1 2	3
20	<p>(a) <math>\frac{15}{8}</math></p> <p>(b) <math>\frac{21}{220}</math></p> <p>B2 : <math>\frac{\frac{8}{15} + \left(-\frac{5}{12}\right)}{1 - \left(\frac{8}{15}\right)\left(\frac{-5}{12}\right)}</math></p> <p>B1: <math>\tan \beta = -\frac{5}{12}</math></p> 	1 3	3

21	$h = 3$ B2: $\frac{dl}{dh} = \frac{1.6\pi}{0.2}$ $L = \pi((2h + h^2))$ B1: $\frac{dL}{dh} = \pi(2 + 2h)$	3	3
22	$x = 1, x = -\frac{4}{3}$ B2: $2(3x^2 + 4x) - 22 = 6x + 4 - 3(6)$ B1: $f'(x) = 6x + 4$ OR $f''(x) = 6$	3	3
23	$k = 5$ dan $n = 3$ B3: $k = 5$ atau $n = 3$ B2: $k \left[ \frac{(1+x)^{-n}}{-n} \right] + c$ B1: $k \int (1+x)^{-(n+1)} dx$	4	4
24	$p = \frac{2}{5}$ and $n = 100$ B2 : $p = \frac{2}{5}$ atau $n = 100$ B1 : $40(1-p) = 24$ atau $n \left( \frac{2}{5} \right) = 40$	3	3
25	kecerdasan rendah < 50 50 < kecerdasan sederhana < 84 Kecerdasan tinggi > 84 B3: $1.036 = \frac{x-65}{18}$ OR $x = 83.648$ B2: $-0.842 = \frac{x-65}{18}$ OR $x = 49.844$ B1: $P_{rendah} = 0.2$ OR $Z_{rendah} = -0.842$	4	4