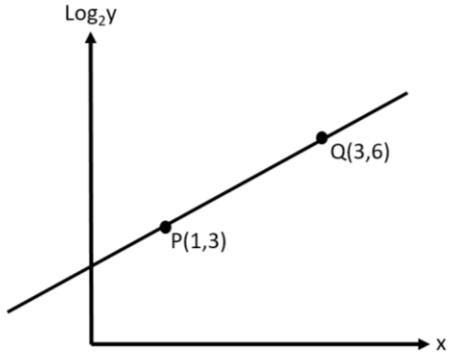
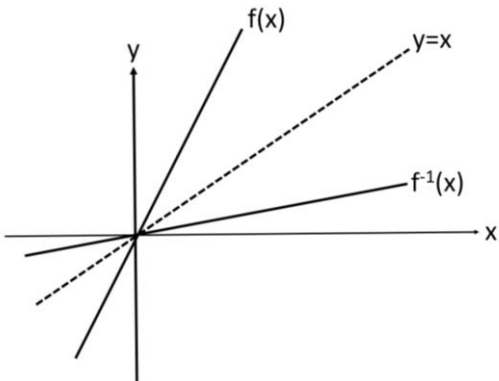


Skema ppc kertas 1 set 1 2020

	Skema pemarkahan		
1	a). Alpha- sisihan piawai terendah b). Alpha = P and Beta=Q	B1 B1	2
2	$m = \frac{n}{2}$ $\frac{1}{2m} \cdot \frac{n(n-1)!}{(n-3)!} = \frac{(n-1)!}{(n-3)!}$ And $n(n-1)!$ seen	B2 B1	2
3	$p = \sqrt{29 - k}$ $k = 29 - p^2$ $k = \frac{232}{8} - (p)^2$	B1 B1	2
4	63.18 $59.5 + \left(\frac{60 - 53}{19}\right)10$ $L_{Q_3} = 59.5, \text{ and } F_{Q_3} = 53, \text{ and } f_{Q_3} = 19$	B3 B2 B1	3
5	-0.4π $4\pi \times (-0.1)$ $\frac{dV}{dh} = \frac{1}{4} \pi h^2 \text{ or } \partial h = -0.1$	B3 B2 B1	3
6	a). -3 b). $\frac{-9}{(u-3)^2}$ $\frac{dv}{du} = \frac{(u-3)(3) - 3u(1)}{(u-3)^2}$ $v = \frac{3u}{u-3}$	B1 B3 B2 B1	4
7	a). 15 3×5 $\int_a^b h(x) dx = [3f(x)]_a^b$ b). $k(x) = -x^3 + \frac{5}{2}x^2 - x + \frac{1}{2}$ $c = \frac{1}{2}$ $k(x) = \int -3x^2 + 5x - 1 dx$	B2 B1 B2 B1	4

8	a). 1 b). $k = \frac{4}{3}$ $3k - 4 = 0$	B1 B2 B1	3
9	a). $\vec{AP} = -6\vec{a} + 9\vec{c}$ $\vec{AP} = \vec{AO} + \vec{OP}$ b). $ \vec{a} = \frac{4}{5}$ $\frac{1}{2}(5)(8) \vec{a} = 16$	B2 B1 B2 B1	4
10	a). $n(A \cap B) = 0$ b). B and D c). A and C	B1 B1 B1	3
11	a). 3 b). $10^\circ, 50^\circ, 130^\circ, 170^\circ$ <i>Sudut rujukan 30°</i>	B1 B2 B1	3
12	119.3787 $\frac{1}{2} \times 25^2 \times 0.52 - \frac{1}{2} \times 10 \times 10 \times \sin 120.41^\circ$ *[162.5 - 43.1213] ATAU $\frac{1}{2} \times 25^2 \times 0.52 - \frac{1}{2} \times 10 \times 10 \times \sin 2.1016 \text{ rad}$ *[162.5 - 43.1200] $\frac{1}{2} \times 25^2 \times 0.52$ ATAU $\frac{1}{2} \times 10 \times 10 \times \sin 120.41^\circ$ atau $\frac{1}{2} \times 10 \times 10 \times \sin 2.1016 \text{ rad}$ j = 25 cm	B4 B3 B2 B1	4

13	<p>a).</p>  <p>$\log_2 y = \log_2 a + x \log_2 b$</p> <p>b). $\frac{3}{2}$</p>	B2 B1 B1	3
14	<p>a). $8 - 2\left(\frac{1}{2}\right)^n$</p> $S_{n+2} = \frac{4\left(1 - \left(\frac{1}{2}\right)^{n+2}\right)}{1 - \frac{1}{2}}$ <p>b). $n > 6, n = 7$</p> $\frac{4\left(1 - \left(\frac{1}{2}\right)^{n+2}\right)}{1 - \frac{1}{2}} - \frac{4\left(1 - \left(\frac{1}{2}\right)^n\right)}{1 - \frac{1}{2}} < \frac{3}{32}$ $S_{n+2} - S_n < \frac{3}{32}$	B2 B1 B2 B1	4
15	<p>24,29,34,39</p> <p>$n = 10$ and $T_n = -21 + 9(5)$</p> $-21 + (n - 1)(5) - 21 + 5n - 21 + (n + 1)(5) - 21 + (n + 2)(5) = 126$ $T_n + T_{n+1} + T_{n+2} + T_{n+3} = 126$	B3 B2 B1	3
16	<p>$x = \sqrt[3]{3}$</p> <p>$\frac{\log_2 3}{3}$ or $\log_2 3^{\frac{1}{3}}$ seen</p>	B2 B1	2
17	<p>$x = 2$ and $x = \frac{1}{16}$</p> <p>$\log_2 x = 1$ or $\log_2 x = -4$ seen</p> <p>$\log_2 256 = 8$ or $2 \log_2 x$ OR $8 \log_2 2$ or $2 \log_2 x$ seen</p> <p>Change base, $\frac{\log_2 256}{\log_2 x^2} - \log_2 x = 3$</p>	B4 B3 B2 B1	4

18	a). $m = -1$ b). $n = -4$ $(-4)^2 - 4(-1)(n) = 0$	B1 B2 B1	3
19	$c = 1$ $b = 4, a = -2$ both $b = -2a$ or $a - b = -6$	B1 B2 B1	3
20	$p = 49$ $\alpha = \frac{7}{2}$ $3\alpha = \frac{21}{2}$ or $2\alpha^2 = \frac{p}{2}$ seen	B3 B2 B1	3
21	$r = 5$ $r = 5$ and $r = 1$ $(r - 1)^2 + (r - 2)^2 = r^2$	B3 B2 B1	3
22	a)i). yes ii). No iii). No All correct B2, two correct B1, one correct B0 b).  Sketch $f(x), f^{-1}(x)$ and $y = x$ Sketch $f(x)$ and $f^{-1}(x)$	B2 B2 B1	4
23	a). $\frac{4}{3}$ b). $y = -\frac{3x}{4} - \frac{7}{7}$ $(y + 4) = -\frac{3}{4}(x - 3)$ or $-4 = -\frac{3}{4}(x - 3)$ Midpoint = $(3, -4)$ or $m = -\frac{3}{4}$	B1 B3 B2 B1	4

