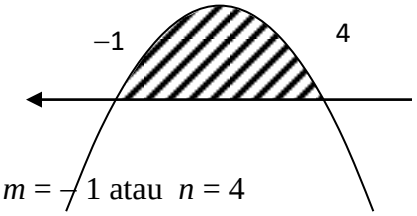
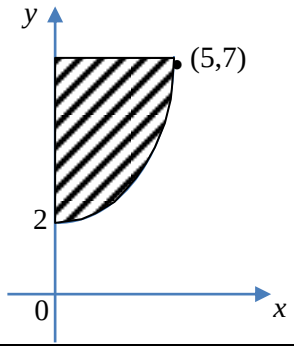
Q			Marks
1	(a) fungsi f memetakan x kepada $x^2 - 2x + 3$ Or function f maps x onto $x^2 - 2x + 3$	B1	**2**
	(b) $f(z) = z^2 - 2z + 3$	B1	
2	$p(x) = 23 - 15x$	3	**3**
	$p(x) = 5(6 - 3x) - 7$	B2	
	$m^{-1}(x) = 6 - 3x$	B1	
3	$p = 2$ dan $q = 7$	3	**3**
	$P = 2$ atau $q = 7$	B2	
	$m + n = -\frac{5}{2}$ and $mn = \frac{9}{2}$	B1	
4	$m = -1$ and $n = 4$	3	**3**
		B2	
	$m = -1$ atau $n = 4$	B1	
5	$x = 0.8042$	**3**	**3**
	$(0.6990) + x(0.9031) = (0.3010) + x(1.3979)$ atau $(3x-1)(0.3010) = (2x-1)(0.6990)$	B2	
	$\log_{10} 5 + \log_{10} 8^x = \log_{10} 2 + \log_{10} 25^x$ atau $(3x-1)\log_{10} 2 = (2x-1)\log_{10} 5$	B1	

6	(*a*) $y=\sqrt{a}$ (*b*) -8 $\log_{\sqrt{y}}1-\log_{\sqrt{y}}a^2$	B**1** **2** B1	**3**
7	$x=4$ $(x-4)(x+1)=0$ $5x-x^2=(7x-4)-5x$	**3** B2 B1	**3**
8	(a) $k=0.0045$ (b) $\frac{27}{11}$ $2+\frac{0.45}{1-\frac{1}{100}}$ $r=0.01$	B**1** **3** B2 B1	**4**
9	(a) $\log_3 y=5p\log_3 x-\log_3 q$ (b) $p=\frac{2}{5}$ dan $q=81$ $p=\frac{2}{5}$ atau $q=81$ $5p=\frac{8-0}{6-2}$ atau $\log_3 q=4$	B1 3 B2 B1	**4**

10	17.6π cm^3 $176\pi \times (0.1)$ $2_{\pi}(4)(22)$	3 B2 B1	**3**
11	$a = 7$ *and* $b = -4$ $a = 7$ or $b = -4$ $2a + 3 - a = 10$ (solve the equations)B2 $2a + b = 10$ or $3 - a = b$	4 B3 B1	**4**
12	35 $8 - \left[3^2 - 6^2\right]$ $\int_2^6 g(x) - \left[\frac{2x^2}{2}\right]_6^3$ $\int_2^3 g(x)dx + \int_3^6 g(x)dx - \int_6^3 2x\,dx$	4 B3 B2 B1	**4**
13	(a)  (b) 35 5 x 7	B1 2 B1	**3**

14	(4, 2) $x-2=-x+6$ (*menyelesaikan persamaan*) $y=-x+6$ (*persamaan PR*) *atau* $y=x-2$ (*persamaan QS*) $m_{PR}=\frac{5-1}{1-5}=-1$ *or* $m_{QS}=1$	4 B3 B2 B1	**4**
15	(a) $\begin{pmatrix} m-4 \\ -5 \end{pmatrix}$ $\overrightarrow{UV}=-\overrightarrow{OU}+\overrightarrow{OV}$ or $\begin{pmatrix} -4 \\ -7 \end{pmatrix}+\begin{pmatrix} m \\ 2 \end{pmatrix}$ (b) $m = 4$ $-4 + m = 0$	2 B1 2 B1	**4**
16	$k = 4$ $1^2 + (4-k)^2 = 1$ $\sqrt{1^2+(4-k)^2}$	3 B2 B1	**3**
17	$k = 12.31°, 77.69°, 192.31°, 257.69°$ $2k = 24.62°, 155.38°, 384.62°, 515.38°$ $2(\sin 2k)=\frac{3}{3.6}$ $kos\ y=\frac{3}{3.6}$	4 B3 B2 B1	**4**

18	234 $L = \frac{1}{2}(30)^2(0.52)$ $15.6 = j(0.52)$	3 B2 B1	**3**
19	(a) 54 (13+5)3 (b) 6	2 B1 B1	**3**
20	$x = 20 - 4y^4$ $2y^2 = \sqrt{\frac{100}{5} - \left(\sqrt{x}\right)^2}$, using formula	2 B1	**2**
21	(a) 5 ! = 120 (b) 72 $2 \times 4!$	B1 2 B1	**3**
22	10 $\frac{n!}{(n-2)!2!} = 45$	2 B1	**2**

23	(a) $\frac{1}{7}$	B1	**3**
	(b) $\frac{3}{17}$	2	
	$\frac{15}{35}\times\frac{14}{34}$	B1	
24	(a) $\frac{1}{4}-2k^2$	2	**3**
	$4k^2 + t + \frac{1}{2} + t = 1$	B1	
	(b) $\frac{7}{8}$	B1	
25	(a) 0.02275	B1	**4**
	(b) 51.78	3	
	$\frac{60-x}{5}=1.645$	B2	
	1.645 dilihat	B1	