

1.								
	If the area of the bounded region							
	$R = \left\{ (x, y) : \max \left\{ 0, \log_e x \right\} \le 1 \right\}$	$y \le 2^x, \frac{1}{2} \le x \le 2$						
	is, $\alpha(\log_e 2)^{-1} + \beta(\log_e 2) + \gamma$, the $(\alpha + \beta - 2\alpha)^2$ is equal to β							
	$(lpha+eta-2\gamma)^2$ is equal to :							
	(1) 8			(2) 2				
	(3) _a 4 _{nongo} /// mathongo							
2.	Let $f(x)$ = Maximum $\left\{x^2, (1-x)\right\}$	$\{x^2, 2x(1-x)\}$, whe	ere $0 \le x \le 1$. Deter	rmine the area of the	region bounded by	the curves $y = f(x)$), x -axis, $x = 0 \& a$	c = 1
	(1) $\frac{17}{27}$ (3) $\frac{13}{22}$ (3) $\frac{13}{22}$			(2) $\frac{15}{25}$				
	20			20				
3.	$\begin{cases} x & , & 0 \leq \end{cases}$	$x<rac{1}{2}$						
	Given: $f(x) = \begin{cases} x, & 0 \le \frac{1}{2} & \text{otherwise} \\ 1 - x, & \frac{1}{2} < \frac{1}{2} \end{cases}$	$=\frac{1}{2}$ mathongo						
	(2 , 2							
	and $g(x) = \left(x - \frac{1}{2}\right)^2, x \in \mathrm{R}$. Th	en the area (in sq. un	its) of the region bo	unded by the curves.	y = f(x) and $y =$	g(x) between the lin	ies, $2x = 1$ and $2x =$	$=\sqrt{3},$
	_			_				
	(1) $\frac{1}{3} + \frac{\sqrt{3}}{4}$ (3) $\frac{1}{2} = \frac{\sqrt{3}}{4}$ mathongo			(2) $\frac{\sqrt{3}}{4} - \frac{1}{3}$				
	$(3) \frac{1}{2} = \frac{\sqrt{3}}{4} \qquad \text{mathongo}$			$(4) \frac{1}{2} + \frac{\sqrt{3}}{4}$				
4.	Area enclosed between the curves	$ \mathbf{y} = 1 - \mathbf{x}^2$ and \mathbf{x}^2	$+ y^2 = 1$ is					
	(1) $\frac{3\pi-8}{3}$ sq. units (3) $\frac{2\pi-8}{3}$ sq. units			(2) $\frac{\pi - 8}{3}$ sq. unit	s			
5.	The area bounded by the lines $y = \begin{bmatrix} x & y \\ y & z \end{bmatrix}$							
	$\left \frac{2}{3} \left \left(2a \right)^{\frac{7}{2}} - 3a + 3 - 2\sqrt{2} \right $. The	en, $f(x)$ = thongo						
	$(1) \ 2\sqrt{2x}, \ x \ge 1$			(2) $\sqrt{2x}, \ x \ge 1$				
6.	The area of the region in 1st quad							
				V ***				
	(1) $\frac{2}{3}$ sq. unit (3) $\frac{11}{3}$ sq. unit			(4) $\frac{13}{6}$ sq. unit				
7.			$y= x-\pi $ is $\frac{\pi^2}{n}$, the					
	if the area bounded by the curve g	(000 (000 00)			41			
8.	The slope of the tangent to the cur		nt (x, y) is 2x + 1	and the curve passes	through $(1, 2)$. If	ne area of the region	bounded by the curv	es,
8.			nt (x, y) is 2x + 1	and the curve passes	through (1, 2). If	ne area of the region	bounded by the curv	/es,/
8.	The slope of the tangent to the cut the x -axis and the line $x=1$ is (1) $5/3$ units	rve y = f(x) at a poin		(2) 5/6 units				
	The slope of the tangent to the cut the x -axis and the line $x = 1$ is (1) $5/3$ units (3) $6/5$ units mathongo	rve $y = f(x)$ at a point mathematical math		(2) 5/6 units (4) 6 units				
	The slope of the tangent to the cut the x -axis and the line $x = 1$ is (1) $5/3$ units (3) $6/5$ units mathonso The area inside the parabola $5x^2$	rve $y = f(x)$ at a point mathematical math	mathongo ne parabola $2x^2 - y$	(2) 5/6 units (4) 6 units + 9 = 0 is				
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