

	stions	JEE Main Crash Cou	rse
1.	$(1) \ \frac{1}{x \log_e 10} - \frac{\log_e 10}{x (\log_e x)^2}$	/// mathongo ///	
		(4) None of these /// mathongo /// mathongo /// mathongo	
2.	Let $f(x) = e^x$, $g(x) = \sin^{-1} x$ and $h(x) = f[g(x)]$, then $\frac{h(x)}{h(x)}$ is equal to	(2) 1	
	(1) $e^{\sin^{-1}x}$ // mathongo // mathongo // mathongo (3) $\sin^{-1}x$	(2) $\frac{1}{\sqrt{1-x^2}}$ ngo /// mathongo /// mathongo /// mathongo (4) $\frac{1}{(1-x^2)}$	
3.	If $y = \tan^{-1}\left(\frac{2^x}{1+2^{2x+1}}\right)$, then $\frac{dy}{dx}$ at $x = 0$ is $k \log \frac{1}{2}$ then find k .	//. mathongo //. mathongo //. mathongo //. mathongo	
4.	The function $f(x) = e^x + x$, being differentiable and one-one, has a differentiable	erentiable inverse $f^{-1}(x)$ The value of $\frac{d}{dx}(f^{-1})$ at the point $f(\log 2)$ is	
	$ \begin{array}{c} (1) \ \frac{1}{\ln 2} \\ (3) \ \frac{1}{4} \text{ ongo} \end{array} $	$ \begin{array}{c} (2) \frac{1}{3} \\ (4) 1 \end{array} $ mathongo $\begin{array}{c} (4) \\ (4) \end{array}$ mathongo $\begin{array}{c} (4) \\ (4) \end{array}$ mathongo $\begin{array}{c} (4) \\ (4) \end{array}$	
5.	If $f(x) = x + \tan x$ and f is inverse of g then $g'(x)$ is equal to		
	(1) $\frac{1}{1+(g(x)-x)^2}$ mathongo /// mathongo /// mathongo	(2) $\frac{1}{2-(g(x)-x)^2}$ mathongo mathongo mathongo (4) None of these	
6.	The derivative of $y = (1-x)(2-x)(n-x)$ at $x=1$ is equal to (1) $(-1)(n-1)!$ (3) $(-1)^{n-1}(n-1)!$	mathongo /// math	
7.	If $y = a \sin x + b \cos x$, then $y^2 + \left(\frac{dy}{dx}\right)^2$ is a		
	(1) function of x	(2) function of y	
///.	(3) function of x and y mathons with the property of y and y mathons with y mathons y mat	(4) constant mathongo // mathongo // mathongo // mathongo	
0.	Let, $g: R \to R$ be a differentiable function satisfying $g(x) = g(y)g(x - (1) \frac{a^2}{b})$	(2) $\frac{a}{b}$	
	(3) $\frac{b}{a}$ ongo /// mathongo /// mathongo		
9.	If $x=2\sin heta-\sin 2 heta$ and $y=2\cos heta-\cos 2 heta$, $ heta\in [0,2\pi]$, then $rac{d^2y}{dx^2}$ at $ heta$	$\theta=\pi$ is:	
9. ///.		$\theta=\pi$ is:	
	If $x=2\sin\theta-\sin2\theta$ and $y=2\cos\theta-\cos2\theta$, $\theta\in[0,2\pi]$, then $\frac{d^2y}{dx^2}$ at $\theta=0$ mathons $\theta=$	$\theta=\pi$ is:	
	If $x=2\sin\theta-\sin2\theta$ and $y=2\cos\theta-\cos2\theta$, $\theta\in[0,2\pi]$, then $\frac{d^2y}{dx^2}$ at $\theta=0$ mathons $\theta=0$ mathons $\theta=0$ mathons $\theta=0$	$\theta = \pi$ is: $ \frac{(2) - \frac{3}{8}}{(4) - \frac{3}{4}} $	
10.	If $x=2\sin\theta-\sin2\theta$ and $y=2\cos\theta-\cos2\theta$, $\theta\in[0,2\pi]$, then $\frac{d^2y}{dx^2}$ at $\theta=0$ and $\theta=0$ methods $\theta=0$ methods $\theta=0$ and $\theta=0$ methods $\theta=0$ meth	$\theta = \pi$ is: $(2) \frac{3}{m^{\frac{3}{8}}}$ hongo /// mathongo	
10. 11.	If $x=2\sin\theta-\sin2\theta$ and $y=2\cos\theta-\cos2\theta$, $\theta\in[0,2\pi]$, then $\frac{d^2y}{dx^2}$ at $\theta=0$ and $\theta=0$ methons $\theta=0$	$\theta=\pi$ is: $ (2) \frac{3}{8} \text{ hongo} $	
///. 10. ///. ///.	If $x=2\sin\theta-\sin2\theta$ and $y=2\cos\theta-\cos2\theta$, $\theta\in[0,2\pi]$, then $\frac{d^2y}{dx^2}$ at $\theta=0$ and $\theta=0$ and $\theta=0$ methongs (3) $\frac{3}{2}$ If $\theta=0$ methongs (4) methongs (5) $\frac{3}{2}$ at $\theta=0$ methongs (7) $\frac{1}{2}$ at $\theta=0$ methongs (8) methongs (9) methongs (10) $\frac{1}{2}$ methongs (11) methongs (12) methongs (13) $\theta=0$ methongs (14) methongs (15) methongs (15) methongs (16) methongs (17) methong	$\theta = \pi$ is: $\frac{(2) - \frac{3}{8}}{(4) - \frac{3}{4}} \text{ mathongo } mathongo $	
10. 10. 14.	If $x=2\sin\theta-\sin2\theta$ and $y=2\cos\theta-\cos2\theta$, $\theta\in[0,2\pi]$, then $\frac{d^2y}{dx^2}$ at $\theta=0$ and $\theta=0$ and $\theta=0$ methongs (3) $\frac{3}{2}$ mathongs (3) $\frac{3}{2}$ mathongs (4) mathongs (5) mathongs (7) mathongs (8) mathongs (8) mathongs (9) mathongs (10) mathongs (11) mathongs (11) mathongs (12) mathongs (13) 0 mathongs (14) mathongs (14) mathongs (15) mathongs (16) mathongs (17) math	$\theta = \pi$ is:	
10. 10. 111. 111.	If $x=2\sin\theta-\sin2\theta$ and $y=2\cos\theta-\cos2\theta$, $\theta\in[0,2\pi]$, then $\frac{d^2y}{dx^2}$ at $\theta=0$ and $\theta=0$	$\theta = \pi$ is: $\frac{(2) - \frac{3}{8} \text{ hongo}}{(4) - \frac{3}{4}} \text{ mathongo} \text{ /// mathongo} //$	
10. 10. 11. 11. 11. 11. 11. 11. 11. 11.	If $x=2\sin\theta-\sin2\theta$ and $y=2\cos\theta-\cos2\theta$, $\theta\in[0,2\pi]$, then $\frac{d^2y}{dx^2}$ at $\theta=0$ and $\theta=0$ a	$P=\pi$ is:	