



$$1^\circ. (x^3)' = 3x^2$$

$$2^\circ. \left(\frac{1}{x^2}\right)' = \frac{-2}{x^3}$$

$$3^\circ. \sin(x^2)' = 2x \cos(x^2)$$

$$4^\circ. \ln(3x^2 + x)' = \frac{6x + 1}{3x^2 + x}$$

$$5^\circ. \left(e^{-x^2}\right)' = -2xe^{-x^2}$$

$$6^\circ. ((2x - 1)^3)' = 6(2x - 1)^2$$

$$7^\circ. ((x^4 - x^2 + 1)^5)' = 5(4x^3 - 2x)(x^4 - x^2 + 1)^4$$

$$8^\circ. \left(\frac{1}{(3-x)^6}\right)' = \frac{6}{(3-x)^7}$$

$$9^\circ. \left(\frac{x+2}{x}\right)' = -\frac{2}{x^2}$$

$$10^\circ. \left(x^{1/3}\right)' = \frac{1}{3}x^{-2/3} = \frac{1}{3\sqrt[3]{x^2}}$$

$$11^\circ. \left(\frac{1}{x\sqrt{x}}\right)' = -\frac{3}{2x^{5/2}}$$

$$12^\circ. \left(\frac{-3x^2 + 4x - 1}{x^2 + 2x + 5}\right)' = -\frac{2(5x^2 + 14x - 11)}{(x^2 + 2x + 5)^2}$$

$$13^\circ. \left(\frac{(x^2 + 1)^3}{(x^2 - x + 1)^2}\right)' = \frac{2(x^2 + 1)^2(x^3 - 2x^2 + x + 1)}{(x^2 - x + 1)^3}$$

$$14^\circ. (\sin^3 x)' = 3 \cos x \sin^2 x$$

$$15^\circ. \cos(2x^2 + 3x)' = -(4x + 3) \sin(2x^2 + 3x)$$

$$16^\circ. \ln(\sin x)' = \cotan x$$

$$17^\circ. \sqrt{\sin x}' = \frac{\cos x}{2\sqrt{\sin x}}$$

$$18^\circ. (x^2 \cos x)' = 2x \cos x - x^2 \sin x$$

$$19^\circ. \left(\frac{\sin x}{\sqrt{x}}\right)' = \frac{\cos x}{\sqrt{x}} - \frac{\sin x}{2x\sqrt{x}}$$

$$20^\circ. (\sqrt{x^2 + 4x + 4})' = \frac{x + 2}{\sqrt{x^2 + 4x + 4}}$$

$$21^\circ. ((x^2 - 5x + 3) \ln x)' = (2x - 5) \ln x + \frac{x^2 - 5x + 3}{x}$$

$$22^\circ. (\sqrt{\ln^2 x + 1})' = \frac{\ln x}{x\sqrt{\ln^2 x + 1}}$$

$$23^\circ. (\tan x + \cotan x)' = \frac{1}{\cos^2 x} - \frac{1}{\sin^2 x}$$

$$24^\circ. \left(\frac{2 \sin x + 1}{2 \sin x - 1}\right)' = \frac{4 \cos x}{-5 + 4 \sin x + 4 \cos^2 x}$$

$$25^\circ. \left(\frac{1 + \tan x}{1 - \tan x}\right)' = \frac{2(1 + \tan^2 x)}{(-1 + \tan^2 x)^2}$$

$$26^\circ. \left(\frac{\cos x}{1 - \sin x}\right)' = \frac{-1}{-1 + \sin x}$$

$$27^\circ. \left(\sqrt{\frac{\cos x}{1 - \sin x}}\right)' = \frac{-1 + \sin x}{2\sqrt{\frac{\sin x + 1}{\cos x}}(-2 + 2 \sin x + \cos^2 x)}$$

$$28^\circ. (x^x)' = (\ln x + 1)x^x$$