

MF ind

14

گلد

(9) (8) $\Rightarrow m = \frac{f}{p} \Rightarrow y = \frac{f}{p} \sin \omega t \Rightarrow y' = \left(\frac{f}{p} \right)$

(1)

✓ (2)

$m = \frac{p-1}{p} = \frac{1}{p} \Rightarrow y = \frac{1}{p} \sin \omega t \Rightarrow \sqrt{a^{n-1}} = \frac{1}{p} \sin \omega t$

(1)

$\Rightarrow \frac{d}{dt} \left(\frac{1}{p} \sin \omega t \right) = \frac{1}{p} \omega \cos \omega t = 0$

$\Rightarrow \left(\frac{1}{p} \right)^p = 1 \Rightarrow a = 1 \Rightarrow \frac{d}{dt} \left(\frac{1}{p} \right) = \frac{1}{p}$

(2)

$m = \frac{p}{p} \Rightarrow y = \frac{p \cos \omega t}{p} = \cos \omega t$

(1)

$\frac{d}{dt} \cos \omega t = -\omega \sin \omega t = 0 \Rightarrow \sin \omega t = 0 \Rightarrow \omega t = 0 \Rightarrow t = 0$

(2)

$f'(x) = \frac{-x \cos x}{(x \sin x)^2} \quad f(x) = \cos x$

(1)

$\Rightarrow \frac{d}{dx} \left(\frac{-x \cos x}{(x \sin x)^2} \right) = \frac{-4 \cos x \cdot x^2}{121}$

(1/2)

$f'(y) = \frac{d}{dy} \left(\frac{1}{y} \right) = -\frac{1}{y^2} = -\frac{1}{1} = -1$

(0)

$\Rightarrow |a| = 1$

(2)

$f(x) = \left(\frac{\sin x - 1}{\sin x} \right)^p - 1$

(1)

$\lim_{x \rightarrow 0} \frac{0}{0} \Rightarrow \frac{\sin x - 1}{\sin x} \cdot \frac{p \cos x}{(\sin x)^{p-1}}$

✓ (1)
 (-f)

$$a_{n-1} = -n^p - 1 \quad , \quad -\frac{1}{a} a_{n-1} = -n^p - 1$$

$$a_1 = n^p \quad , \quad -n^p$$

$$n^p = -n^p - 1 \Rightarrow n = -n^p - 1$$

$$n^p = -n^p - 1 \Rightarrow n = -n^p - 1$$

$\Rightarrow y = -1 \Rightarrow$
 -

1.18

(1)

$$a_1 = a_1 \Rightarrow f'(a_1) = a$$

$$(1) \frac{1}{\sqrt{x}} (x^{\frac{1}{2}}) = a$$

$$(2) \frac{1}{\sqrt{x}} (x^{\frac{1}{2}}) + (x^{\frac{1}{2}})' = a$$

$$\Rightarrow a = \frac{1}{\sqrt{x}} \checkmark$$

(1)

$$\frac{d}{dx} \sqrt{x} \Rightarrow f'(a_1) = a$$

$$(1) a = \frac{1}{\sqrt{x}}$$

(9)

$$(2) a = \frac{1}{\sqrt{x}} \Rightarrow \frac{1}{\sqrt{x}} = a \Rightarrow \sqrt{x} = \frac{1}{a} \Rightarrow x = \frac{1}{a^2}$$

\checkmark (2)

(1)

$$y = x^2 - 1 \xrightarrow{\text{قرينة}} y_1 = -x^2 - 1 \xrightarrow{\text{مشتق}} y_1' = -2x$$

✓

$$m_{D_1} = -2(-\alpha) = 2\alpha \quad \xrightarrow{\text{عكس}} \quad -2\alpha^2 = -1 \quad \leadsto \alpha = \pm \frac{1}{\sqrt{2}}$$

✓ خلفاً لـ D_1 و D_2 ارتقا من كبريت:

$$\text{انتقاً} \rightarrow A(-\frac{1}{\sqrt{2}}, \beta) \quad B(\frac{1}{\sqrt{2}}, \beta) \quad \xrightarrow{\text{فاصلة خفا}} \quad | -(\frac{1}{\sqrt{2}})^2 - 1 | = | -\frac{1}{2} - 1 | = | -\frac{3}{2} | = 1.5$$

$${}^3g - \phi(n) = \frac{9}{3 + \sin n} - \frac{(3 - \sin n)(9 + \sin^2 n + 3 \sin n)}{(3 - \sin n)(3 + \sin n)} = \frac{-\sin n(\sin n + 3)}{\sin n + 3}$$

✓

$$\hookrightarrow -\sin n \xrightarrow{\text{مشتق}} ({}^3g - \phi)'(n) = -\cos n \quad \leadsto \quad -\cos\left(\frac{\pi}{4}\right) = -\frac{1}{\sqrt{2}}$$

$$g(n) = (n^2 - 1)^{-\frac{1}{2}} \quad \rightarrow \quad g'(n) = -\frac{1}{2}(2n)(n^2 - 1)^{-\frac{3}{2}}$$

✓

$$g'\left(\sqrt{\frac{\Delta}{2}}\right) = -\frac{1}{2}(\sqrt{8})\left(\frac{\Delta}{2} - 1\right)^{-\frac{3}{2}} \quad \rightarrow \quad -\frac{\sqrt{\Delta}}{2} \left(\frac{-2(-\frac{\Delta}{2})}{2}\right) = -\frac{1}{2}\sqrt{\Delta}$$

$$g\left(\sqrt{\frac{\Delta}{2}}\right) = \frac{1}{\sqrt{\frac{\Delta}{2} - 1}} = \frac{1}{\sqrt{\frac{1}{2} - 1}} = \frac{1}{\frac{1}{2}} = 2$$

$$\phi'(2) = ((2n)^3)' = 2 \cdot 2n^2 = 2 \cdot 2 \cdot 2 = 8$$

$$\phi \circ g'\left(\sqrt{\frac{\Delta}{2}}\right) = -\frac{1}{2}\sqrt{\Delta} + 2 \cdot 2 \cdot 2 = -\frac{1}{2}\sqrt{\Delta} + 8 \quad \xrightarrow{\text{مشتق}} \quad \frac{2 \cdot 2 \cdot 2 - \frac{1}{2}\sqrt{\Delta}}{-\frac{1}{2}\sqrt{\Delta}} = 8 - \frac{1}{2}\sqrt{\Delta}$$

1