Kristian Feher, Jalisha Crews, Melva Avila Save the Polar Bears
Mat: 151
3.4

Homework Problem Using the Chain Rule

$$y = \sqrt[6]{2x^2+3x} = (2x^2+3x)^{\frac{1}{6}}$$

$$y' = \frac{1}{6}(2x^2+3x)^{\frac{-5}{6}} \cdot \frac{d}{dx}(2x^2+3x)$$

$$y' = \frac{1}{6}(2x^2+3x)^{\frac{-5}{6}} \cdot (4x+3)$$

New Group

$$\sqrt{\cos(5x^2)}$$

$$1/2 \cos(5x^2)^{-1/2}$$

$$1/2 \cos(5x^2)^{-1/2} \cdot d/dx \cos(5x^2)$$

$$-1/2 \cos(5x^2)^{-1/2} \sin(5x^2)\, d/dx(5x^2)$$

$$-1/2 \cos(5x^2)^{-1/2} \sin(5x^2) 10x$$

$$-5x \cos(5x^2)^{-1/2} \sin(5x^2)$$

Will Arbito
Ryan ZHAO

B.A is B.S

$$y = \sqrt{x^4 + \tan x}$$
$$y' = \left(x^4 + \tan x\right)^{\frac{1}{2}}$$
$$y' = \frac{1}{2}\left(x^4 + \tan x\right)^{-1/2} \cdot \left(4x^3 + \sec(x)\right)$$

Laquan
Fabian
Sal

$$3(\cos(2x^2+5))^2$$
$$6(\cos(2x^2+5))\frac{d}{dx}(\cos(2x^2+5))$$
$$6(\cos(2x^2+5))\cdot -\sin(2x^2+5)\frac{d}{dx}(2x^2+5)$$
$$6(\cos(2x^2+5))\cdot -\sin(2x^2+5(4x)$$

Yves Mascle
Abe Egr

THE GROUP

#1 $y = \cos(a^3 + x^3)$

$y' = -\sin(a^3 + x^3) \cdot (3a^2 + 3x^2)$

#2 $y = \sin(2x^2 + e^x)$

$y' = \cos(2x^2 + e^x) \cdot (4x + e^x)$

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Team alpha. (α)

$m(x) = 2x+3$
$j(x) = [\cos^2(e^x)]^2$

$\Big\}$ $f(x) = [\cos^2(e^{2x+3})]^2$; $\{f(x) = x^4$; $g(x) = \cos^2(x)$
$h(x) = e^x$; $k(x) = 2x+3\}$

$$f'(x) = 4(\cos^2(e^{2x+3}))\frac{d}{dx}(\cos(e^{2x+3}))$$
$$= 4(\cos^2(e^{2x+3}))(-\sin(e^{2x+3}))\frac{d}{dx}(e^{2x+3})$$
$$= 4(\cos(e^{2x+3}))(-\sin(e^{2x+3}))(e^{2x+3})\frac{d}{dx}(2x+3)$$
$$= 4(\cos(e^{2x+3}))(-\sin(e^{2x+3}))(e^{2x+3})(2)$$
$$= 8(\cos(e^{2x+3}))(-\sin(e^{2x+3}))(e^{2x+3})$$

Mike Gankhuyag
Jonathan Chen

. Pythagorus

$$y = ((x+1)^2+2)^3$$

$$y' = \frac{d}{dx}\left[(x+1)^2+2\right]^3$$

$$y' = 3\left((x+1)^2+2\right)^2 \frac{d}{dx}\left[(x+1)^2+2\right]$$

$$y' = 3\left[(x+1)^2+2\right]^2 (2)(x+1)$$

$$y' = 6\left[(x+1)^2+2\right]^2 (x+1)$$

Cam.
Cassandra
Augustin
Manduxhai

Vote for

$$(C \cdot A \cdot M) = \sin\left[4\left(\frac{x-2}{x+1}\right)+10\right]$$

24.02.10
Wednesday.

$$= \frac{d}{dx}\sin\left[4\left(\frac{x-2}{x+1}\right)+10\right] \cdot \frac{d}{dx}\left[4\left(\frac{x-2}{x+1}\right)+10\right] \frac{d}{dx}\left[\frac{x-2}{x+1}\right]$$

$$= \cos\left[4\left(\frac{x-2}{x+1}\right)+10\right] \cdot [4+0] \cdot \left[\frac{1(x+1)-1(x-2)}{x^2+2x+1}\right]$$

(multiply)

$$= 4 \cdot \left[\cos\left(\frac{4x-8+10x+10}{x+1}\right) \cdot \left(\frac{x+1-x+2}{x^2+2x+1}\right)\right] =$$

$$= \frac{12 \cdot \cos\left(\frac{14x+2}{x+1}\right)}{(x+1)^2}$$