60) $y = 5\cos^2(\pi t)$

$\left(\cos(\pi t)\right)^2$

$y' = 5 \cdot 2\left(\cos(\pi t)\right)^1 \cdot -\sin(\pi t) \cdot \pi$

$y' = -10\pi \sin(\pi t)\cos(\pi t)$

30) $\dfrac{x}{\sqrt{x^4+4}}$ $\quad f \quad g \quad \dfrac{f'g - fg'}{g^2}$

$(x^4+4)^{1/2}$

$x(x^4+4)^{-1/2}$

$$\frac{1 \cdot \sqrt{x^4+4} - x \cancel{\tfrac{1}{2}}(x^4+4)^{-1/2} \cdot \cancel{4}^{\,2} x^3}{x^4+4}$$

$$\frac{(x^4+4)^{1/2} - 2x^4(x^4+4)^{-1/2}}{(x^4+4)^1}$$

$$\frac{(x^4+4)^{-1/2}\left((x^4+4)^1 - 2x^4\right)}{\underbrace{(x^4+4)^{1/2}(x^4+4)^1}_{(x^4+4)^{3/2}}}$$

$x^4+4 \quad -2x^4$

$$\frac{-x^4+4}{(x^4+4)^{3/2}}$$

$$\frac{x^2 \cdot y^{-2}}{z^3 x^4}$$

$x^3 + x$

$x(x^2+1)$

~~41.~~)

66.) $\sin(x^{1/3}) + (\sin x)^{1/3}$

$\cos(x^{1/3}) \cdot \frac{1}{3} x^{-2/3} + \frac{1}{3}(\sin x)^{-2/3} \cdot \cos x$

$\frac{1 \cos x^{1/3}}{3 x^{2/3}} + \frac{1 \cos x}{3(\sin x)^{2/3}}$