

SOME ADDITIONAL 3.3 AND 3.4 IDEAS

1. Find the derivative of $f(x) = \frac{\sin(x)\cos(x)}{x^3+x}$
2. Determine where the graph $f(x) = \frac{5x^3}{x^2+2}$ has a horizontal tangent.
3. Come up with an example that demonstrates why $\frac{d}{dx} [f(x)g(x)] \neq \frac{d}{dx} [f(x)] \frac{d}{dx} [g(x)]$.