

MAT 136 (Calculus I), Prof. Jim Swift
In-Class Worksheet: Derivative Shortcuts 1.

For each of these functions, fill in the blank with the derivative *if* you can do so using the rules we have learned so far in this class, possibly after an algebraic manipulation of the expression. Otherwise, write “Can’t do yet.”

Let $f(x) = x^2 - 3x + 4$. $f'(x) =$

Let $y = x^{-3} - 1$. $\frac{dy}{dx} =$

$\frac{d}{dx} (x^{\frac{1}{2}} - 2x + 1) =$

Let $f(x) = x^2 + x - 4$.

$f'(3) =$

Let $f(x) = \frac{x^2 - 1}{x}$

$f'(x) =$

Let $f(x) = \frac{x}{x^2 - 1}$. $f'(x) =$

$\frac{d}{dx} (\sqrt{x}(x^2 - 1)) =$

$\frac{d}{dx} \left(\frac{\sqrt{x}}{x^2 - 1} \right) =$
