

M119 Supplement Section 2.2 Renaming and taking derivatives

Rules for exponents: $\frac{c}{x^n} = cx^{-n}$ $\sqrt[n]{x^m} = x^{m/n}$ $\frac{c}{\sqrt[n]{x^m}} = cx^{-m/n}$

	$f(x)$	Rename using rules for exponents	Use Power Rule to find $f'(x)$	Simplify using rules for exponents
1.	$f(x) = \sqrt[7]{x^2}$			
2.	$f(x) = \frac{4}{\sqrt{x}}$			
3.	$f(x) = \frac{1}{x^7}$			
4.	$f(x) = \sqrt{x}$			
5.	$f(x) = \frac{6}{x^4}$			
6.	$f(x) = \frac{7}{\sqrt[6]{x}}$			
7.	$f(x) = \frac{-4}{x^3}$			
8.	$f(x) = 72\sqrt[5]{x^2}$			
9.	$f(x) = \frac{2x^3 + 4x^2}{2x^7}$			
10.	$f(x) = \frac{2}{3x}$			
11.	$f(x) = \frac{x}{4}$			