

Business Calculus
MettMath 121
February 12, 2003

NAME: _____

Use short-cuts to find derivatives of the following functions.

1. $f(x) = 5x^7 + \frac{2}{x^3} + 5\sqrt{x} + 17$

ANSWER: $f'(x) = 35x^6 - \frac{6}{x^4} + \frac{5}{2\sqrt{x}}$

2. $g(x) = x^2(3x + 5)$

ANSWER: $g'(x) = 9x^2 + 10x$

3. $h(x) = \frac{7x^2 - 2}{x}$

ANSWER: $h'(x) = 7 + \frac{2}{x^2}$