

Name \_\_\_\_\_ Quiz 6, Calculus 1

1) Find the derivative of  $f(x) = (x^3 + 5x^2 + 3x + 2)^6$

2) Find  $\frac{d}{dx}(\sin(7^{3x^2}))$

3) Suppose the position of a rolling ball is given by  $s(t) = 3t^2 + 5t - 6$  feet, where  $t$  is measured in seconds. Find the velocity of the ball after 2 seconds.