

**QUICK REVIEW #4 – DERIVATIVES: GENERAL POWER RULE**

Name \_\_\_\_\_

Date \_\_\_\_\_ Hour \_\_\_\_\_

**1. Find the derivative for each of the following functions:**

\_\_\_\_\_ a.  $f(x) = 3 + x^2$

\_\_\_\_\_ b.  $f(x) = x^2 + \frac{1}{x^2} - 8x$

\_\_\_\_\_ c.  $f(x) = 3 \sin x$

\_\_\_\_\_ d.  $f(x) = \frac{x^4 + x^3 + x + 2}{x^3}$

**2. Find the value of the derivative of the function at the indicated point:**

\_\_\_\_\_ a.  $f(x) = x(x^2 + 1)$  at  $(3, 30)$