

**Quiz****Name**

1. Solve  $\int (x^2 - 1)^9 3x dx$  with the method of substitution.

2. Solve  $\int x^3 \ln x dx$  with the method of integration by parts.

3. Consider the function  $f(x) = x^3 - 2x^2 + 3$ . Suppose that the function has an inverse and let  $g(x) = f^{-1}(x)$ . Find the values  $g(2)$  and  $g'(2)$ .