Daily Quiz 10 - Thursday, July 16, 2009

1. (5 points) Rewrite as a sum or difference of multiples of logarithms.
\[ \ln \left( \frac{\sqrt[4]{xy}}{t^{4/3}} \right). \]

2. (5 points) Rewrite as a single expression.
\[ 3 \log_4(x^2) - 4 \log_4(x^{-3}) + 2 \log_4(x). \]
3. (5 points) Solve the following equation.
\[ \log_3(x) = \log_3 2 - \log_3(x - 2). \]

4. (5 points) Solve the following equation.
\[ \left( \frac{1}{2} \right)^{2x-1} = \left( \frac{1}{4} \right)^{3x+2}. \]

Extra Credit: Name a type of cheese.