

Math 30

Date: _____

Derivative Gateway Test

Name: _____

Find the derivative of each of the following functions. Do not simplify your answers.

Be careful when writing answers, since all errors count, including missing parentheses! **No notes or calculators allowed.**

Time Limit: 20 minutes.

17. $y = -7(t^4 + 2t - 1)^3 - t + \pi^2$

25. $y = (x - 1)(x - 2)(x - 3)$

54. $F(s) = \frac{\ln(s^2 - 3)}{\tan(-s)}$

78. $y = t(t^3 - 4)^{1/4}$

91. $f(t) = 5^{\sin t}$

113. $G(t) = \frac{100}{\cos^4 t - 1}$

125. $P(t) = P_0(1.07)^t$, where P_0 is a constant