

SURVEILLANCE QUIZ FOR CALC4 ON JAN. 20, 2015

Name: _____ **RUID:** _____

Email: _____

(1) (1 pt) $\ln \mu + \ln x = 0$ means

A. $\mu + x = 0$; B. $\mu + x = 1$; C. $\mu x = 0$; D. $\mu x = 1$.

(2) (1 pt) $\ln \mu = 2 \ln x - \ln 2x$ means

A. $\mu = 0$; B. $\mu = 1$; C. $\mu = x$; D. something else.

(3) (1 pt) Let $P(t) = (At + B)e^{-t}$, where A, B are constant numbers. Find $P'' - P' - 2P$.

(4) (1 pt) Solve the polynomial equation

$$r^3 - r^2 + r - 1 = 0.$$

(5) (1 pt) Compute the indefinite integral

$$\int \cos^2(3t) dt$$

(6) (1 pt) Compute the indefinite integral

$$\int x e^{-x} dx$$

(7) (1 pt) Compute the indefinite integral

$$\int \frac{1}{(1-t)^2} dt$$

(8) (1 pt) Compute the indefinite integral

$$\int \tan t dt$$