Business Calculus — Math 121
Mett — April 2, 2003

NAME: _____

row: _____(count from your left)

1. Solve for x:

   (a) $e^{\sqrt{x}} = e^3$
   ANSWER: $x = 9$

   (b) $e^{\ln x} = 4$
   ANSWER: $x = 4$

   (c) $\ln\left(e^{(x^2+3)}\right) = 5$
   ANSWER: $x = \pm\sqrt{2}$

   (d) $\ln(\sqrt{x}) = 5$
   ANSWER: $x = e^{10}$

2. If $f(x) = 5e^{-x} - 2e^{-5x}$, find $f'(x)$.
   ANSWER: $f'(x) = -5\,e^{-x} + 10\,e^{-5\,x}$