**Name:** ———————————————   **Panther ID:** ——————————

**Quiz 3**   Calculus I – Spring '14

**To receive credit you MUST SHOW ALL YOUR WORK.**

**1.** (4 pts) Solve the initial value problem:

$$\frac{dy}{dx} = \frac{3}{2x} + x^2 - 1, \quad y(1) = \frac{1}{3}$$

**2.** Compute (3 pts each)

(b) $\displaystyle\int \frac{\cos(3/x)}{x^2}\, dx$

(c) $\displaystyle\int \frac{\sec^2 x}{\sqrt{1 - \tan^2 x}}\, dx$