
Name: _____

ID #: _____
(Show Your Work)

1. By using the fundamental theorem of calculus, find the derivative of

$$g(x) = \int_0^{\tan x} \sqrt{t + \sqrt{t}} dt. \quad (3 \text{ points})$$

2. Evaluate $\int_1^9 \frac{3x - 2}{\sqrt{x}} dx$. (3 points)

3. Evaluate $\int \frac{dx}{x\sqrt{\ln x}}$.

(4 points)