

To receive credit you MUST SHOW ALL YOUR WORK.

1. Evaluate each integral:

(a) (3 pts) $\int (\sec^2 x) \sqrt{1 + 3 \tan x} \, dx$

(b) (4 pts) $\int x \sin(3x) \, dx$

(c) (4 pts) $\int \sin^3 x \cos^2 x \, dx$