

Due: Tuesday, March 14th, 4:00pm

1. (2 points) Find the following:

$$\int \frac{1}{4 \sin x - 3 \cos x} dx$$

2. (2 points) Prove that if $u = \tan\left(\frac{x}{2}\right)$, then $dx = \frac{2}{1+u^2} du$