

Math 2300-007: Quiz 1

Name: _____

Score: _____

1. (6 points) Evaluate the following

(a) $\frac{d}{dx} \csc(x) =$

(d) $\int 3^x + x^2 dx =$

(b) $\int \frac{1}{1+t^2} dt =$

(e) $\ln(1) =$

(c) $\cos\left(\frac{7\pi}{6}\right) =$

(f) $\frac{d}{d\theta} \sqrt{\sin(3\theta)} =$

2. (1 point) u/du -substitution is a technique for finding antiderivatives that is most closely related to which rule for finding derivatives?

3. (3 points) Evaluate the following integral. (Hint: Consider that $\sin^2(x) + \cos^2(x) = 1$.)

$$\int \cos^3(x) \sin^2(x) dx =$$