Quiz 6

Compute the following indefinite integrals, use u-substitution as needed.

1. (2 points) \[ \int e^{-3x} \, dx \]
   \[ = -\frac{1}{3} e^{-3x} + c \]

2. (2 points) \[ \int e^{x/3} \, dx \]
   \[ = 3 e^{x/3} + c \]

3. (2 points) \[ \int \sin x \, dx \]
   \[ = -\cos x + c \]

4. (2 points) \[ \int \frac{2x}{1+x^4} \, dx = \int \frac{2x}{1+(x^2)^2} \, dx \]
   \[ = \arctan(x^2) + c \]

5. (1 points) \[ \cos 0 = 1 \]

6. (1 points) \[ \cos \pi = -1 \]