

**Quiz 4 — Monday, July 19**

Name: \_\_\_\_\_

1. (4 points) Compute the following. You do not need to justify your answers.

(a)  $\frac{d}{dx}(5) =$  \_\_\_\_\_

(b)  $\frac{d}{dz}(\cos z) =$  \_\_\_\_\_

(c)  $\lim_{\theta \rightarrow 0} \frac{\sin \theta}{\theta} =$  \_\_\_\_\_

(d)  $\frac{d}{dx}(2x^4 - 3x^{-3}) =$  \_\_\_\_\_

2. (3 points) Let  $f(x) = \frac{e^x}{x^2}$ . Compute  $f'(x)$ .

3. (3 points) Let  $w = \sin(z^2)$ . Compute  $\frac{dw}{dz}$ .