## Quiz 3 MATH 1A Fall 2015

24 September 2015

**Exercise 3.1.** Prove that

$$\lim_{x \to 0} x^2 \cos\left(\frac{1}{x}\right) + x = 0.$$

Exercise 3.2. State the definitions of the following limits.

$$\lim_{x \to a^{-}} f(x) = \infty$$

$$\lim_{x \to -\infty} f(x) = L$$