Extra Exercise Problems

The following problems are not to be turned in. It is recommended for preparation for the second midterm exam on Nov 18.

1. Let $f(x) = \sin(x^2)$, $x \in \mathbb{R}$. Compute $f'(x)$, $f''(x)$, and $f''(x)$ for $x \in \mathbb{R}$.

2. Let $g(x) = e^{-\frac{1}{x}}$, $x \in (0, \infty)$. Compute $g'(x)$, $g''(x)$, and $g'''(x)$ for $x \in (0, \infty)$.