

HONOR 2201, CALCULUS FOR NON-SCIENCE MAJORS, FALL 2005

INSTRUCTOR: BO-HAE IM

⟨ Graph of functions ⟩

1. The graph of $y = cf(x)$ is a stretched graph of $y = f(x)$ by a factor of c units.
2. The graph of $y = \frac{1}{c}f(x)$ is a compressed graph of $y = f(x)$ by a factor of c units.
3. The graph of $y = f(x) + k$ with $k > 0$ is a shifted graph of $y = f(x)$ upward up to k units.
4. The graph of $y = f(x) - k$ with $k > 0$ is a shifted graph of $y = f(x)$ downward up to k units.
5. The graph of $y = f(x + k)$ with $k > 0$ is a shifted graph of $y = f(x)$ left up to k units.
6. The graph of $y = f(x - k)$ with $k > 0$ is a shifted graph of $y = f(x)$ right up to k units.
7. The graph of $y = -f(x)$ is a reflection of the graph of $y = f(x)$ about the x -axis.
8. The graph of $y = f(-x)$ is a reflection of the graph of $y = f(x)$ about the origin $(0, 0)$.

⟨ Graphs of various standard functions ⟩

These are given in class.