# CS3540 Assignment No.1

Due Wednesday, Jan 13.

1. Estimate the height of a building, given the height of a person, $h$, the distance from the building, $D$, and the elevation angle, $\theta$, in degrees. Develop a C program to compute the height of a building using the mathematical formula:

$$bh = h + D \times \tan(\theta\,\pi/180)$$

2. Develop a C program to compute the distance between two points on a circle in the X-Y plane. Use the mathematical expression for computing the distance between two points in the X-Y plane:

$$d = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$$