1. A ladder is 8m long and is placed aganist a building. The angle between the ladder and the ground is 61°. How high will the top of the ladder reach up the building? How far is the foot of the ladder from the wall of the building?

2. Express each of the following in terms of functions of a positive acute angle (same as Problems 6.12).

   (a) $\sin(\frac{2\pi}{3})$

   (b) $\cos(\frac{11\pi}{6})$

   (c) $\tan(\frac{16\pi}{3})$

   (d) $\sin(\frac{8\pi}{7})$

3. Use your cacluator to find

   (a) $\sin(\frac{3\pi}{2})$

   (b) $\cot(\frac{5\pi}{8})$

   (c) $\sec(\frac{11\pi}{5})$