Additional Problem Assignment 4

1. For each angle find the reference angle in the first quadrant (express in radians).
   (a) $\frac{4\pi}{7}$
   (b) $\frac{9\pi}{4}$
   (c) $-\frac{3\pi}{5}$
   (d) $-\frac{13\pi}{6}$

2. Given that $\sin\left(\frac{5\pi}{12}\right) = \frac{\sqrt{6}+\sqrt{2}}{4}$ and $\cos\left(\frac{5\pi}{12}\right) = \frac{\sqrt{6}-\sqrt{2}}{4}$. Find the exact value (i.e. don't use your calculators) of
   (a) $\sin\left(\frac{7\pi}{12}\right)$
   (b) $\cos\left(\frac{13\pi}{12}\right)$
   (c) $\sin\left(-\frac{5\pi}{12}\right)$
   (d) $\cos\left(-\frac{23\pi}{12}\right)$