ENG6 WQ2016 Lab 1

1. Calculate and then display using the disp() function:

   a. $\frac{\sin\left(\frac{7\pi}{9}\right)}{cos^2\left(\frac{5}{7}\pi\right)} + \frac{1}{7}\tan\left(\frac{5}{12}\pi\right)$

   b. $\frac{\tan 64°}{cos^2 14°} - \frac{3\sin 80°}{\sqrt[3]{0.9}} + \frac{\cos 55°}{\sin 11°}$

2. Two trigonometric identities are given by:

   a. $\sin 4x = 4\sin x \cos x - 8sin^3 x \cos x$

   b. $\cos 2x = \frac{1-tan^2 x}{1+tan^2 x}$

   c. For each part, verify that the identity is correct by calculating the values of the left and right sides of the equation, substituting $x = {}^{\pi}/_{9}$

3. Calculate the length of a in figure 1. (Hint: use law of cosines:

$$a^2 = b^2 + c^2 - 2bc\cos\alpha\ )$$

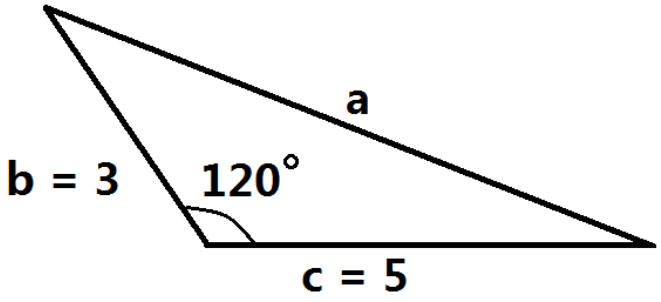

Figure 1