Module 1

Right Triangles

1.1 Angles - Additional Exercises

1. Each angle below is given as an angle of positive measure. Draw each angle in standard position, and write each as a negative angle.
   
   a) $70^\circ$  b) $142^\circ$  c) $303^\circ$

2. Each angle below is given as an angle of negative measure. Draw each angle in standard position, and write each as a positive angle.
   
   a) $-40^\circ$  b) $-124^\circ$  c) $-334^\circ$

3. Find four angles coterminal to an angle of $112^\circ$.

4. True or false:
   
   (a) The complement of an obtuse angle is acute.
   
   (b) Two obtuse angles may be supplementary angles.
   
   (c) Two acute angles may be supplementary angles.
   
   (d) An acute angle may be a complement of an obtuse angle.
   
   (e) A complement of an obtuse angle is always an acute angle.
   
   (f) An angle is the supplement of the supplement of itself.
   
   (g) The complement of a right angle is acute.

5. Find the reference angle for each of the following angles.
   
   a) $-40^\circ$  b) $134^\circ$  c) $317^\circ$
   
   d) $1140^\circ$  e) $-2700^\circ$  f) $72^\circ$

6. Find a second quadrant angle, a third quadrant angle, and a fourth quadrant angle, each of which has a reference angle of $18^\circ$. 
7. Express the following in decimal form.

   a) $49^\circ 22'$  
   b) $22'$  
   c) $15^\circ 20'$  
   d) $10^\circ 30' 30''$  
   e) $120^\circ 40''$  
   f) $65^\circ 20' 12''$