Math 152 - Triangle Trig. Practice Name: _____

Show all work clearly and in order. Please box your answers.

1. Suppose $x = \sin(\theta)$ and $-\pi/2 \leq \theta \leq \pi/2$.
   (a) Draw the corresponding right triangle:

   (b) $\sin(\theta) =$
   (c) $\cos(\theta) =$
   (d) $\tan(\theta) =$

2. Suppose $x = 3\sin(\theta)$ and $-\pi/2 \leq \theta \leq \pi/2$.
   (a) Draw the corresponding right triangle:

   (b) $\sin(\theta) =$
   (c) $\cos(\theta) =$
   (d) $\tan(\theta) =$

3. Suppose $x = 2\tan(\theta)$ and $-\pi/2 < \theta < \pi/2$.
   (a) Draw the corresponding right triangle:

   (b) $\sin(\theta) =$
   (c) $\cos(\theta) =$
   (d) $\tan(\theta) =$

4. Suppose $x = 5\sec(\theta)$ and $[0 \leq \theta < \pi/2$ OR $\pi \leq \theta < 3\pi/2]$.
   (a) Draw the corresponding right triangle:

   (b) $\sin(\theta) =$
   (c) $\cos(\theta) =$
   (d) $\tan(\theta) =$

5. Complete the square for each of the following:
   (a) $x^2 + 2x =$
   (b) $x^2 + x + 1 =$
   (c) $x^2 - 2x + 2 =$
   (d) $x^2 - 4x + 8 =$
   (e) $5 + 4x - x^2 =$