Due Wednesday 1/31/2018
On a separate piece of paper, complete a-e for each of the following. Show all work. Avoid intermediate rounding error. Box your final answers, with units when appropriate.


1. If $\sec \theta=-5$ and $\csc \theta<0$
2. If $\cot \theta=-\frac{3}{4}$ and $\sec \theta<0$
3. If $\csc \theta=-3$ and $\sec \theta<0$
4. If $\cos \theta=\frac{2}{7}$ and $\csc \theta<0$
(a) Draw the reference triangle for $\theta$ in the correct quadrant. Show your arc and angle $\theta$.
(b) Find the simplified, exact, rationalized value of $\sin \theta$.
(c) Find the simplified, exact, rationalized value of $\tan \theta$.
(d) Find the reference angle, $\theta_{\text {ref }}$, for $\theta$ in degrees. Show the equation you are solving and report 3 decimals.
(e) To three decimals, find the value of $\theta$ such that $\theta \in\left[0^{\circ}, 360^{\circ}\right)$. Show the computations that lead to your answer.
