MCR3UI Unit 5 Skill Reflection \#5 PLEASE DO NOT WRITE ON THIS PAPER. ***DO ALL THESE WITHOUT A CALCULATOR

RECORD ALL ANSWERS ON SCRAP PAPER.

1. Complete each of the following tables.

| Related Acute <br> Angle, $\beta$ | Quadrant | Sketch | Principal <br> Angle, $\theta$ |
| :---: | :---: | :---: | :---: |
| $70^{\circ}$ | 3 |  |  |


| Related Acute <br> Angle, $\beta$ | Quadrant | Sketch | Principal Angle <br> $\theta$ |
| :---: | :---: | :---: | :---: |
|  |  |  | $350^{\circ}$ |

2. The point $(-6,6)$ is on the terminal arm of an angle $\theta$ in standard position.
a) Draw angle $\theta$ in standard position. Notice: the point $(-1,1)$ is also on the terminal arm with the same value for $\theta$.
b) Find the exact trig ratios $\sin \theta, \cos \theta, \tan \theta, \csc \theta, \sec \theta$, and $\cot \theta$
(This will be the same ratios as using $(-1,1)$ and your special $1,1, \sqrt{2}$ triangle)
c) Determine the value of $\theta$, using your special triangle knowledge.
3. Determine all possible values of $\theta$ for each of the following, given $0^{\circ}<\theta<360^{\circ}$.
a) $\sin \theta=\frac{-1}{2}$
b) $\sin \theta=\frac{\sqrt{3}}{2}$
c) $\cos \theta=\frac{-1}{\sqrt{2}}$
d) $\tan \theta=\frac{1}{\sqrt{3}}$
e) $\tan \theta=-1 \quad$ f) $\csc \theta=-2$
4. Determine the exact value of each of the following the trig ratios.

Draw a diagram to support each answer.
a) $\sin 135^{\circ}$
b) $\sin 330^{\circ}$
c) $\cos 240^{\circ}$
d) $\cos 210^{\circ}$
e) $\tan 45^{\circ}$
f) $\cot 225^{\circ}$
g) $\cot 300^{\circ}$

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