## MCR3UI Unit 5 <u>Skill Reflection #5</u> PLEASE DO <u>NOT</u> WRITE ON THIS PAPER. <u>\*\*\*DO ALL THESE WITHOUT A CALCULATOR</u> RECORD ALL ANSWERS ON SCRAP PAPER.

1. Complete each of the following tables.

Related Acute	Quadrant	Sketch	Principal
Angle, $eta$			Angle, ${f  heta}$
70°	3		

Related Acute	Quadrant	Sketch	Principal Angle
Angle, $eta$			θ
			350°

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)  $\tan\theta = -1$  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) sin135°	b) sin330°	c) cos240°	d) cos210°	e) tan45°	f) cot225°	g) cot300°
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