MCR 3UI Angles in Standard Position Worksheet #1 Date: _____

(Answers to 8-3 for posting on website.)

Exercises 8-3, page 314

1. **a)** 0.8000, 0.6000, 1.3333
b) 0.8000, −0.6000, −1.3333
c) −0.7071, −0.7071, 1.000
d) −0.9231, 0.3846, −2.4000

2. **a)** 0.1961, −0.9806, −0.2000
b) −0.8944, −0.4472, −2.000
c) −0.3162, 0.9487, −0.3333
d) 0.8944, −0.4472, −2.000

3. **a)** 0.766 **b)** −0.819 **c)** −1.192 **d)** −0.342 **e)** −0.174 **f)** −0.574 **g)** −0.231 **h)** −0.995

4. **a)** 0.389 **b)** 0.825 **c)** 3.010 **d)** 0.974 **e)** −0.990 **f)** 1.587 **g)** −0.779 **h)** −0.781

5. **b)** −0.6, 0.8, −0.75

6. **b)** 0.894, −0.447, −2.000

7. **a)** $-\frac{5}{13}, \frac{12}{13}, -\frac{5}{12}$ **b)** $-\frac{1}{\sqrt{5}}, -\frac{2}{\sqrt{5}}, \frac{1}{2}$
c) $\frac{1}{\sqrt{10}}, -\frac{3}{\sqrt{10}}, -\frac{1}{3}$ **d)** $-\frac{4}{5}, -\frac{3}{5}, \frac{4}{3}$
e) $-\frac{1}{\sqrt{10}}, \frac{3}{\sqrt{10}}, -\frac{1}{3}$ **f)** $\frac{9}{\sqrt{85}}, \frac{2}{\sqrt{85}}, 4.5$
g) 1, 0, undefined **h)** 0, −1, 0

8. **a)** 0.819 15 **b)** Typical answers: 485°, 845°, −235°

9. **a)** −0.766 04
b) Typical answers: 580°, 940°, −140°

12. **b)** P(3,2) **c)** $\sin\theta = \frac{2}{\sqrt{13}}, \cos\theta = \frac{3}{\sqrt{13}}$

13. **b)** P(−2,5) **c)** $\sin\theta = \frac{5}{\sqrt{29}}, \cos\theta = -\frac{2}{\sqrt{29}}$

14. **b)** P(−1,2) **c)** $\cos\theta = -\frac{1}{\sqrt{5}}, \tan\theta = -2$

15. **a)** $\sin\theta = \frac{12}{13}, \tan\theta = -2.4$
b) $\cos\theta = -\frac{\sqrt{15}}{4}, \tan\theta = \frac{1}{\sqrt{15}}$
c) $\sin\theta = -\frac{3}{\sqrt{13}}, \cos\theta = -\frac{2}{\sqrt{13}}$
d) $\cos\theta = \frac{\sqrt{7}}{4}, \tan\theta = -\frac{3}{\sqrt{7}}$

16. **a)** Typical answers: 30°, 150°, 390°
b) An infinite number