MAT 142, Quiz #8, Spring 2017   Name _____ **KEY** _____
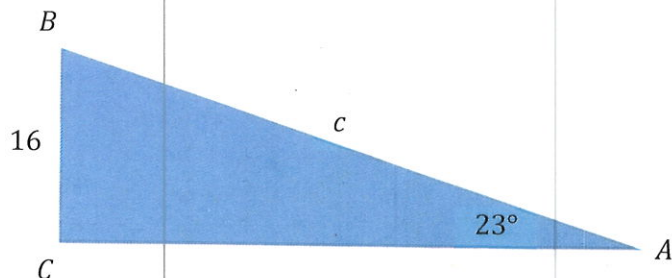
Instructions: Show all work. Give exact answers unless specifically asked to round.
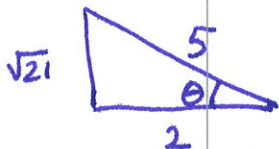
1. Find the length of the hypotenuse.

$$\sin 23° = \frac{16}{c}$$

$$c = 16/\sin 23° = 40.95$$

2. Find the values of the other five trig functions if $\sin\theta = \frac{\sqrt{21}}{5}$ and $\cos\theta > 0$.

$$\cos\theta = \frac{2}{5} \qquad \sec\theta = \frac{5}{2}$$

$$\tan\theta = \frac{\sqrt{21}}{2} \qquad \csc\theta = \frac{5}{\sqrt{21}}$$

$$\cot\theta = \frac{2}{\sqrt{21}}$$

3. Find two angles coterminal with:
    a. 420°

    $$60°, -300°$$

    b. $\frac{\pi}{9}$

    $$\frac{19\pi}{9}, -\frac{17\pi}{9}$$