

**Math 105: Trigonometry**  
**Worksheet 5, Due Monday July 29th at noon**

1. Solve the following system of trigonometric equations for  $\theta$  and  $\gamma$ :

$$\begin{cases} 2 \sin(\theta) - 3 \cos(\gamma) = 4 \\ 8 \sin(\theta) + 6 \cos(\gamma) = 2. \end{cases}$$

2. Find the partial fraction expansion for (find  $A$ ,  $B$ , and  $C$ )

$$\frac{-x^2 + 13x - 26}{(x + 1)^2(x - 4)} = \frac{A}{x + 1} + \frac{B}{(x + 1)^2} + \frac{C}{x - 4}.$$