MATH 191: TRIGONOMETRY WORKSHEET

Instructions: Please complete these problems to the best of your abilities. These problems are designed to help both you and I decide what materials to focus on over the next few lectures.

PLEASE CIRCLE YOUR FINAL ANSWERS!

1. Graph the functions $y = \tan(x - \pi/4)$ and $y = \tan(2x)$.

2. Graph the function $y = \frac{\cos(x + \pi/4)}{2}$

3. If $0 < \theta < \pi/2$ and $\cos(\theta) = 3/5$, calculate $\csc(\theta)$ and $\cot(\theta)$. 
4. Use the addition formulas (p. 29 in Rogawski) to calculate the following:

a) \( \cos \left( \frac{7\pi}{12} \right) \)

b) \( \cos \left( \frac{\pi}{12} \right) \)

5. Consider the line \( y = mx + b \), and let \( \theta \) be the angle between this line and the positive \( x \)-axis. What is \( \tan(\theta) \)?