

Name _____

Date _____ Hour _____

Math Analysis & Trig.
Problem of the week- Due 10-31-2008

Directions: Print out this page and answer the following questions directly on that sheet of paper.

1. (2 points) Find the exact value of: $\sin 75^\circ$

2. (2 points) Find the exact value of $\cos 247.5^\circ$

3. (2 points) If $\sin \alpha = \frac{9}{41}$ and α is in quadrant 1, find:

a) $\cos 2\theta$

b) $\tan \frac{\theta}{2}$

4. (4 points) If $\sin \alpha = \frac{-5}{13}$ and α is in quadrant 3, and $\cos \beta = \frac{-7}{25}$ and β is in quadrant 2, find:

a) $\sin 2\alpha$

b) $\tan \frac{\alpha}{2}$

c) $\sin (\alpha + \beta)$

d) $\cos (\alpha - \beta)$