NAME _____

Multiple Angles and Double Angles
Homework

Solving Equations Involving Multiple Angles

Find all solutions of the equation.

1) $2\sin 3x = \sqrt{3}$

2) $2\cos 4x = -1$

3) If $\sin\theta = \frac{1}{3}$ and θ is in quadrant II, evaluate each expression.

a) $\sin 2\theta$

b) $\cos 2\theta$

c) $\tan 2\theta$

4) Write each expression in terms of a single trigonometric function.

a) $2\sin 3\cos 3$ _____

b) $2\sin 2\cos 2$ _____

c) $2\cos^2 5 - 1$ _____

d) $1 - 2\sin^2 3$ _____

More 6-4 Practice: Sum and Difference

Find the exact value of each.

1) cos(285°)

2) $\sin\left(\frac{19\pi}{12}\right)$

3) tan(105°)

Find the exact value for each using $\sin u = \frac{3}{5}$ and $\cos v = -\frac{5}{13}$. $0 < u < \frac{\pi}{2}$ and $\pi < v < \frac{3\pi}{2}$

4) tan(u + v)

5) sin(u + v)

6) cos(u + v)