

Group: _____ Present: _____

1. Use double angle formulas to verify the identity

$$\sin(4x) = (4 \sin(x) \cos(x))(2 \cos^2(x) - 1)$$

2. Find all exact solutions to the equation $\sin(3x) + \cos(2x) = 0$. Use your grapher to do a reality check.

3. Use the power-reducing identities to express $\sin^4(x)$ in terms of sines and cosines raised to the first power.