SLU PreCalculus Quiz 6 Spring 2007

Name _____ Score_____/10

Please Print Clearly

1. Prove the identity $\cos^4\beta - \sin^4\beta = \cos(2\beta)$

2. Use the identity $\cos(x - y) = \cos(x)\cos(y) + \sin(x)\sin(y)$ to prove the identity $\cos(180° - \beta) = -\cos(\beta)$

3. Prove the identity $\cos(\alpha + 60°) + \sin(30° + \alpha) = \cos(\alpha)$

4. Provide a counterexample to show that $\sin(x) + 2\cos(x) = 0$ is not an identity.