Name: _____ Quiz Score: _____ /20

Quiz 5

1. (10 pts)

    (a) State the difference formula for cosine:

    $$\cos(u - v) =$$

    (b) Use your answer above and basic identities to **derive** the familiar sum formula for cosine (the formula for $\cos(u + v)$). *State a reason for each step.*

2. (10 pts) Verify the following identity. *State a reason for each step.*

    $$\cos^4 x - \sin^4 x = \cos 2x$$