NAME (Print!): ______ Check one: (1pm): _____ (2pm): _____

Quiz 1

Answer the following three problems. Calculators are not allowed. Justify your work where appropriate.

Problem 1, 4 points: Sketch the graph of

 $\cos(2(\theta - \pi/2))$

over $[0, 2\pi]$.

Problem 2, 3 points: Let $f(x) = \frac{1}{x^2+1}$ and $g(x) = \frac{1}{x^2}$. Calculate the composite functions $f \circ g$ and $g \circ f$ and determine their domains.

Problem 3, 3 Points: Compute $\sin^{-1}\left(\sin\left(\frac{4\pi}{3}\right)\right)$.