Name: _____

Math 32, Spring 2010, Section 101
Quiz 10

(1) (4 pts) Find all solutions to the equation $2\cos^2 x - \sin x - 1 = 0$. Hint: first substitute for $\cos^2 x$ to get a quadratic in $\sin x$.

(2) (3 pts) Use long division to find the quotient and remainder in the following. Be sure to specify which is the quotient and which is the remainder.

$$\frac{5x^4 - 3x^2 + 2}{x^2 - 3x + 5}$$

(3) (3 pts) Use the quadratic formula to find two complex numbers (which will be conjugates of each other) that solve the equation $5z^2 + 2z + 2 = 0$. Hint: what is $(6i)^2$?