Name: _____ **Period:** ___

Sheet #760: Quadratics with Imaginary Solutions

A. Find the square root of -49.

B. Solve $x^2 = -81$.

C. Solve $x^2+4x+5=0$ exactly by completing the square (you may check with the quadratic formula), **without** using a calculator.

D. Solve $x^2+3x+3=0$ as in part C.

E. 'FOIL' multiply $(x+i)(x-i)$.

F. Multiply $(3x+2i)(7x+5i)$. \

G. Multiply $[x-(-2+i)][x-(-2-i)]$. Why does this look familiar?

H. Sketch $f(x) = 3x^2-2x-2$ and find real or imaginary solutions.
"solutions" are meant to mean "zeros."

J. Sketch $f(x) = 2x^2+3x+2$ and find real or imaginary solutions.