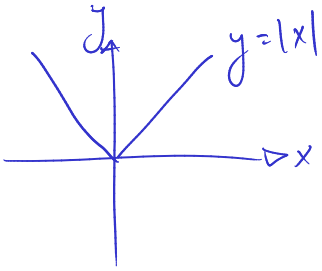
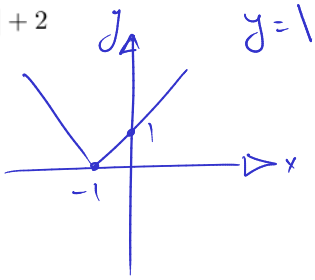
Algebra & Trig - MATH 1450-02 - Quiz #8 - Feb 4, 2013

Name:

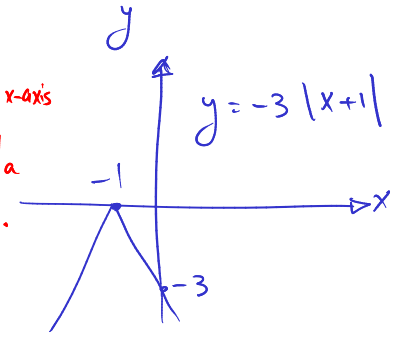
1. Sketch the graph of $y = -3|x + 1| + 2$



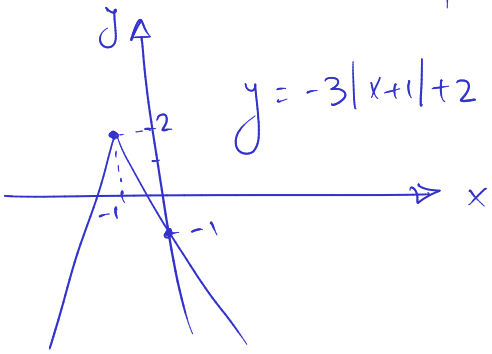
1-unit shift to left →



reflection in x-axis and stretching vertically by a factor of 3. →



shift 2-units up →



2. Write an equation for a function whose graph is the graph of $f(x) = x^3$ and is shifted 2 units right, stretched vertically by a factor of 5, reflected in $y-$axis, and shifted 2 units up.

$x^3 \longrightarrow (x-2)^3 \longrightarrow 5(x-2)^3$

$\longrightarrow 5(-x-2)^3 \longrightarrow 5(-x-2)^3 + 2$

also $= -5(x+2)^3 + 2$