

## HOMEWORK SET 1

MAT 122 · FALL 2008

You must show all work to get full credit. You can use a calculator to check your work.

**Problem 1.** Write the equation of a line with slope of  $-3$  and a  $x$ -intercept  $(-\frac{4}{3}, 0)$

**Problem 2.** Write the equation of a line perpendicular to the line  $x + 3y = -3$  and having a  $y$ -intercept of  $5$ .

**Problem 3.** Write the equation of a line parallel to  $3x - y = 2$  and passing through the point  $(5, 2)$ .

**Problem 4.** Find the equation of the line whose perpendicular forms an angle of  $135$  degree from the positive side of the  $x$ -axis and whose perpendicular distance is  $2$ -vertical units from the origin.