

## HOMEWORK 1 - MATH 111

DUE DATE: Monday, January 19

INSTRUCTOR: George Voutsadakis

Read each problem very carefully before starting to solve it. Each question is worth 1 point. It is necessary to show your work. Correct answers without explanations are worth 0 points.

GOOD LUCK!!

1. Sketch the graph of  $x = 2y + 3$ .
2. Find the  $x$ - and  $y$ -intercepts of the graph of  $2x - 3y = 6$ .
3. Sketch the graph of  $y + 2x = 5$ .
4. Find the  $x$ - and  $y$ -intercepts of the graph in 3.
5. Find the slope of the line passing through the points  $(-4, 7)$  and  $(3, 0)$ .
6. Find the equation of the line having slope  $m = \frac{3}{2}$  and  $y$ -intercept  $b = -17$ .
7. Find the equation of the line that is perpendicular to  $y = \frac{1}{5}x + 3$  and goes through the point  $(7, 5)$ .
8. Find the equation of the line that has slope  $m = -\frac{1}{2}$  and goes through the point  $(2, -3)$ .