

## HOMEWORK 1 - MATH 111

DUE DATE: Wednesday, September 8

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  $5x - 3y = 12$ .
2. Find the  $x$ - and  $y$ -intercepts of the graph of  $8x + 3y = 7$ .
3. Find the  $x$ - and  $y$ -intercepts of the graph of  $2y + x = 7$  and then sketch its graph.
4. Find the slope of the line passing through the points  $(-2, 7)$  and  $(3, -1)$ .
5. Find the equation of the line having slope  $m = \frac{3}{5}$  and  $y$ -intercept  $b = -7$ .
6. Find the equation of the line that is perpendicular to  $y = \frac{1}{5}x + 3$  and goes through the point  $(7, 5)$ .
7. Find the equation of the line that has slope  $m = -\frac{1}{2}$  and goes through the point  $(2, -3)$ .
8. The United States is China's largest export market. Imports from China grew from about 46 billion dollars in 1995 to 82 billion dollars in 1999. Let  $x=0$  correspond to 1900 and estimate the amount of imports in 2002.