## HOMEWORK 1 - MATH 111 DUE DATE: Monday, January 17 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 3y 4x = 12.
- 2. Find the x- and y-intercepts of the graph of 2x + 5y = 6.
- 3. Find the x- and y-intercepts of the graph of  $y = \frac{2}{3}x 7$  and then sketch its graph.
- 4. Find the slope of the line passing through the points (-3,7) and (5,-2).
- 5. Find the equation of the line having slope  $m = \frac{3}{7}$  and y-intercept b = 4.
- 6. Find the equation of the line that is perpendicular to  $y = -\frac{1}{5}x + 3$  and goes through the point (2, -5).
- 7. Find the equation of the line that has slope  $m = \frac{1}{2}$  and goes through the point (-2, -1).
- 8. The United States is China's largest export market. Imports from China grew from about 50 billion dollars in 1995 to 90 billion dollars in 1999. Let x=0 correspond to 1900. Estimate the amount of imports in 2005 assuming a linear growth model.