ECONOMICS 1A: PROBLEM SET 1

Review of Graphs and Formulas

1. For each of the following equations, graph the line and calculate its slope.
   a. \( P = 10 - 2Q \) (put Q on the X axis)
   b. \( P = 100 - 4Q \) (put Q on the X axis)
   c. \( P = 50 + 6Q \) (put Q on the X axis)
   d. \( I = 10,000 - 500r \) (put I on the X axis)

2. Calculate the area under the lines in 1a and 1b from Q = 0 to Q = 5.

3. Graph the following equations (with Q on the X axis) and calculate where the lines intersect.
   a. \( P = 10 - 2Q, \ P = 4 + Q \)
   b. \( P = 100 - 4Q, \ P = 50 + 6Q \)

4. Calculate the area between the two curves and the vertical axis in 3a and 3b