Read each problem **very carefully** before starting to solve it. Each problem is worth 5 points. It is necessary to show **all** your work. Correct answers without explanations are worth 0 points. GOOD LUCK!!

1. Suppose that a company's marginal revenue is given by  $MR(x) = \frac{4x^2 - 5x + 2}{x}$ , where  $x \ge 1$ . If the company's revenue at x = 1 is \$1,000, find the revenue equation R(x).

2. Find the area of the region trapped between the graphs of f(x) = 2x - 10 and  $g(x) = -x^2 - 7$ .