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 $\operatorname{MR}(x)=\frac{4 x^{2}-5 x+2}{x}$, where $x \geq 1$. 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 $f(x)=2 x-10$ and $g(x)=-x^{2}-7$.
