

YOUR NAME: _____

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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. Compute the indefinite integral $\int \frac{(1 + \sqrt{x})^2}{\sqrt{x}} dx$

2. A company's marginal cost is given by $MC(x) = \frac{1}{\sqrt{2x+9}}$. If its fixed costs are 100, find the cost function $C(x)$.

3. Apply integration by parts to compute the integral $\int x(x-5)^7 dx$.