

YOUR NAME: _____

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

1. [9 points] Compute the indefinite integrals:

(a) $\int (5x^4 - 12x^3 + 10x) dx =$

(b) $\int \left(\frac{1}{\sqrt[3]{x^2}} + 16\sqrt[5]{x^3} \right) dx =$

(c) $\int (x(x - 2)^2) dx =$

2. [3 points] A company's marginal cost is given by

$$MC(x) = 21x^{4/3} - 6x^{1/2} + 50,$$

where x is the number of units produced. If the cost for producing 1 unit is \$1,070, find the cost function $C(x)$.