QUIZ NUMBER FOUR FOR MTH102 SPRING007

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Name———————————, Id. Num.————————————————-, Score $\overline{15}$

QUESTION 1. *Find $f'(x)$ and do not simplify.*

1) $f(x) = (\sqrt{3x+7})^{13}(x^2 - 7x + \frac{3}{x^3})$

2) $f(x) = 3x^3 + \frac{x-1}{4x^2+86}$

3) (Use the back side to answer this question) Let $P(x) = 600x + \frac{-7}{x^2}$

1) Find the average profit when $x = 100$.

2) find the marginal average profit when $x = 100$.

3) USE the answer in (1) and (2), to find (approximately) the profit on 101 units.

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