Homework 1 (score: 80.60/110.00)

October 23, 2019

Problem 7 (score: 10/10)

ok

Problem 29 (score: 0/10)[1]

$$\left(\frac{\sqrt[3]{v}-2ve^v}{v}\right)' = \left(v^{-2/3}-2e^v\right)' \neq \left(v^{2/3}-2e^v\right)'.$$

Problem 35 (score: 10/10)

ok

Problem 38 (score: 10/10)

ok

Problem 50 (score: 1.6/10) [2]

(a)

$$\begin{aligned} s'(t) &= 4t^3-6t^2+2t-1 && \text{ok} \\ s''(t) &= 12t^2-12t+\not{4}2 && \text{NOT ok} \end{aligned}$$

(b)

$$s''(1) = 2 \neq 4.$$

(c) where is graph?!

Problem 56 (score: 10/10)

ok

[1] similar problems: 16, 19

[2] similar problems: `https://nailbiter.github.io/threadmill-for-3-1-50/` and click "exercise 50"

Problem 61 (score: 10/10)

ok

Problem 68 (score: 0/10) [3]

wrong ($B = -1/2 \neq 1/2$)

Problem 72 (score: 10/10)

ok

Problem 81 (score: 10/10)

ok

Problem 83 (score: 9/10) [4]

~~$f'(x) = 1000$~~ this is wrong

make-up #1

Problem 29

ok

Problem 50

ok

Problem 68

NOT ok

Problem 83

NOT ok

$$\lim_{x \to 1} \frac{x^{1000} - 1^{1000}}{x - 1} = f'(x)$$

this is wrong (should be $= f'(1)$).

Also, why $\lim_{x \to 1} \frac{x^{1000}-1}{x-1} = \lim_{x \to 1} \left(x^{1000}\right)'$?

[3] similar problems: `https://nailbiter.github.io/threadmill-for-3-1-50/` and click "exercise 68"

[4] similar problems: evaluate $\lim_{x \to 2} \frac{24-6x^2}{x-2}$ and $\lim_{x \to 3} \frac{2+4x+4x^2-50}{x-3}$