MA 16010: Applied Calculus 1 Quiz 5 Tues., July 12, 2022

Please show **all** your work! Answers without supporting work will not be given credit. Write answers in spaces provided.

Name:_____

1. **[5 pts]** Find x value at which the function $g(x) = \frac{1}{5}x^5 - 3x^3$ has a relative minimum.

x=_____

2. **[7 pts]** Given

$$f(x) = \frac{1}{4}x^4 + \frac{2}{3}x^3 + \frac{1}{2}x^2 + 7$$

Determine the largest open interval(s) on which $f(x)$ is decreasing and concave down.

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