

MATH 115

In class work 8, Fall 2022

Name: _____

Row and Seat: _____

In class work 8 has questions 1 through 2 with a total of 8 points. Turn in your work at the end of class *on paper*. This assignment is due *Wednesday 11 October at 13:15 P.M.*

1 1. For the function $Q(x) = 2x^3 + 3x^2 - 36x$, do the following:

1 (a) Find the location of all HTs. That is, solve $Q'(x) = 0$.

1 (b) Find $\max_{[-5,5]} Q$

1 (c) Find $\min_{[-5,5]} Q$

1

(d) Find $\max_{[-4,-2]} Q$

2. For the function $J(x) = x^2/2 - \ln(x)$, do the following:

1

(a) Find the location of all HTs. That is, solve $J'(x) = 0$.

1

(b) Find $\max_{[1/2, 2]} J$

1

(c) Find $\min_{[1/2, 2]} J$