MATH 115

In class work 1, Fall 2022

Name: _____

Row and Seat:_____

In class work 1 has questions 1 through 4 with a total of 15 points. Digitize your work and submit it to Canvas. This assignment is due *Wednesday 24 at 13:15* P M.

5 1. Find the *natural domain* of the function F whose formula is $F(x) = \frac{1}{5 + \frac{1}{x}}$

5 2. Use desmos to graph $y = \frac{1}{5 + \frac{1}{x}}$. As best you can, reproduce the graph here. Also, use the graph to determine range(F). Be careful! Is one in the range?

3. Define functions $F(x) = x^2 - 1$ and $G(x) = 1 - x$. Find the numerical values of

   (a) $(F + G)(4) =$

   (b) $(F \circ G)(4) =$

   (c) $(G \circ F)(4) =$

4. Show below is a graph of a function Q. Given that the graph of Q is a translation of the graph of $y = |x|$, what is the formula for Q?