

MATH 115

In class work 2, Fall 2022

Name: _____

Row and Seat: _____

In class work 2 has questions 1 through 3 with a total of 15 points. Turn in your work at the end of class *on paper*. This assignment is due *Wednesday 31 August at 13:15 PM*.

- 5 1. After graduation, suppose your starting salary is \$46,000. Further, suppose that you expect to earn a 4.1% pay rise each year you work. What is your salary in your 40th year of work?
- 5 2. The inequations $y = 3x + 2$ and $0 \leq x \leq 2$ defines x implicitly as a function of y . Find an *explicit* representation of x as a function of y . Remember to find the allowed values of y .

- 5 3. Define $Q(x) = x^2 - 2x + 2$ and $\text{dom}(Q) = [1, \infty)$. Find the formula and the domain of Q^{-1} . Use desmos to graph both Q and Q^{-1} . As best you can, reproduce your graphs here.