MATH 115 **Name:** _____

In class work 3, Fall 2022 **Row and Seat**: _____

In class work 3 has questions 1 through 2 with a total of 10 points. Turn in your work at the end of class *on paper*. This assignment is due *Wednesday 7 September 13:15* PM.

1. Find each of the following limits. Justify each of your steps by referencing one of our rules numbered zero through seven.

2 (a) $\lim_{x\to\pi}\left(x^3+x\right)$

2 (b) $\lim_{x\to\sqrt{2}}\sqrt{x+1}$

2 (c) $\lim_{x\to\sqrt{2}}\dfrac{x+1}{x-1}$

2 (d) $\lim_{x\to\sqrt{35}}\sqrt{12-2\sqrt{x}}$

2. A graph of a function Q is shown. Using the graph, as best you can find the numerical value of each limit.

1 (a) $\lim_{x \to 2} Q(x)$

1 (b) $\lim_{x \to -1^{(+)}} Q(x)$