MATH 102, Spring 2023 **Name:** _____
In class work 4 **Row and Seat:** _____

In class work 4 has questions 1 through 2 with a total of 6 points. This assignment is due at the end of the class period (9:55 AM).

1. The domain of a function W is the closed interval $[-2,5]$ and its graph is shown below. Several dots on the graph are labeled for you.

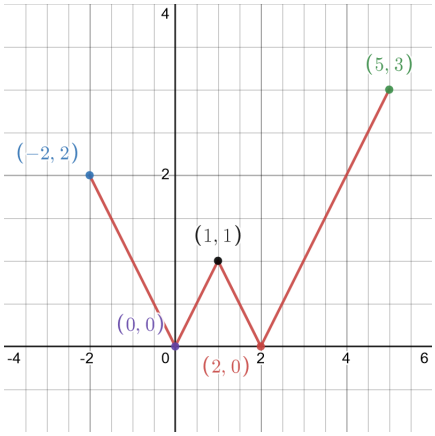

Figure 1: Graph of the function W.

1 (a) Use the graph to determine the *numerical value* of $W(1)$.

1 (b) Find the *range* of W. Remember that the range of a function is the set of all outputs. You need to collect all the y coordinates that are on the graph.

1 (c) Find the interval(s) on which W is *decreasing*.

1 (d) Find the interval(s) on which W is *increasing*.

2. The formula for a function Q is $Q(x) = \max(1, x^2)$ and the domain of Q is $[-3, 3]$. A graph of Q is shown below.

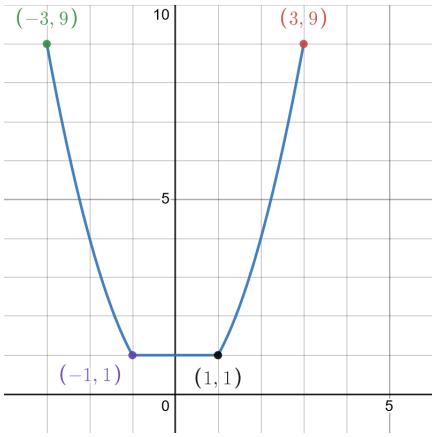

Figure 2: Graph of the function W.

1 (a) Find the interval on which Q is a *constant*.

1 (b) Find the average rate of change of Q on the interval $[-1, 3]$.