

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.

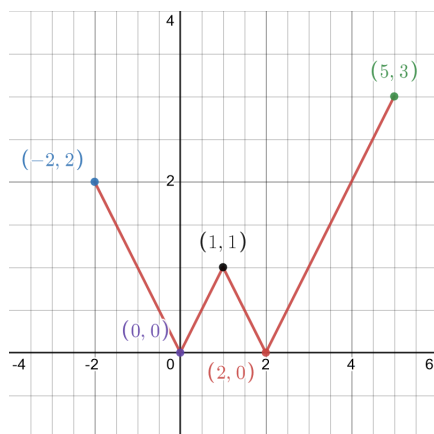


Figure 1: Graph of the function  $W$ .

- 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.
- 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.

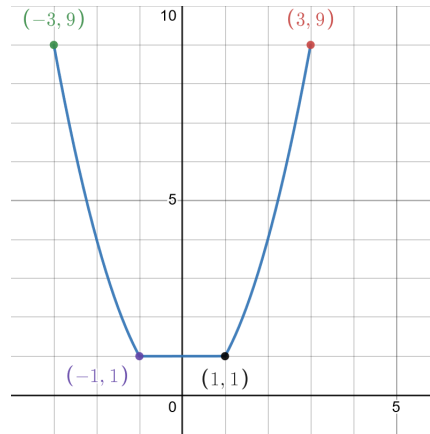


Figure 2: Graph of the function  $W$ .

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

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