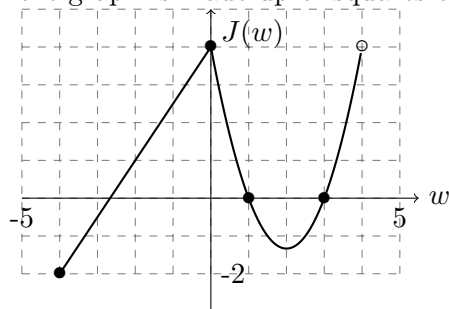


9. [15 points] Below is a graph of a function $J(w)$ and a table of values for a function $T(z)$. The grid on the graph is made up of squares of side length one.



z	-3	-2	3	4	9
$T(z)$	9	3	1	3	c

- a. [3 points] Suppose the average rate of change of $T(z)$ between $z = -3$ and $z = 9$ is 2.5. Find c .

$c =$ _____.

- b. [4 points] Find all solutions to the equation

$$T(J(w)) = 3$$

using only the information about $J(w)$ and $T(z)$ above. Find exact answers if possible, or estimate using the grid if needed. Circle your final answer(s).

- c. [8 points] $J(w)$ is comprised of a linear piece and a quadratic piece. Find a piecewise-defined function for $J(w)$. Circle your answer.