Exercise 13

For the following exercises, determine whether the relation represents y as a function of x.

$$y = -2x^2 + 40x$$

Solution

The relation $y = -2x^2 + 40x$ is a function because for every input x, there's exactly one output given by $y = -2x^2 + 40x$. This is reflected in the graph by the fact that any vertical line passes through the curve exactly once.

