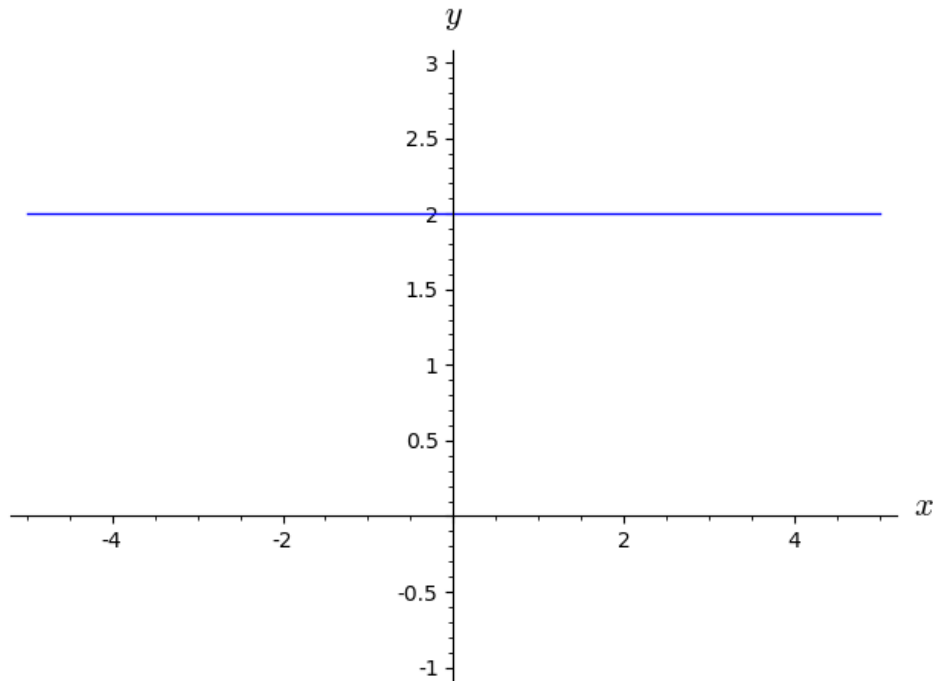The constant functions have the form $f(x) = c$, where c is some fixed, real number. The graph of $f(x) = c$ is the horizontal line $y = c$. The example shown below is the graph of $f(x) = 2$.

Properties of the constant function $f(x) = c$:

• Domain: All real numbers, $(-\infty, \infty)$

• Range: The single number c, $\{c\}$

• Symmetry: f is an even function. Its graph is symmetric about the y-axis.

• Increasing/Decreasing: f is neither increasing nor decreasing. Its values are constant.

• Extreme values: $y = c$ is the only value! It is both a maximum value and a minimum value.

• Interesting features:

    − The graph is the horizontal line with y-intercept $(0, c)$.