1. A graph of the function $y = R(x)$ is drawn on the axes below.
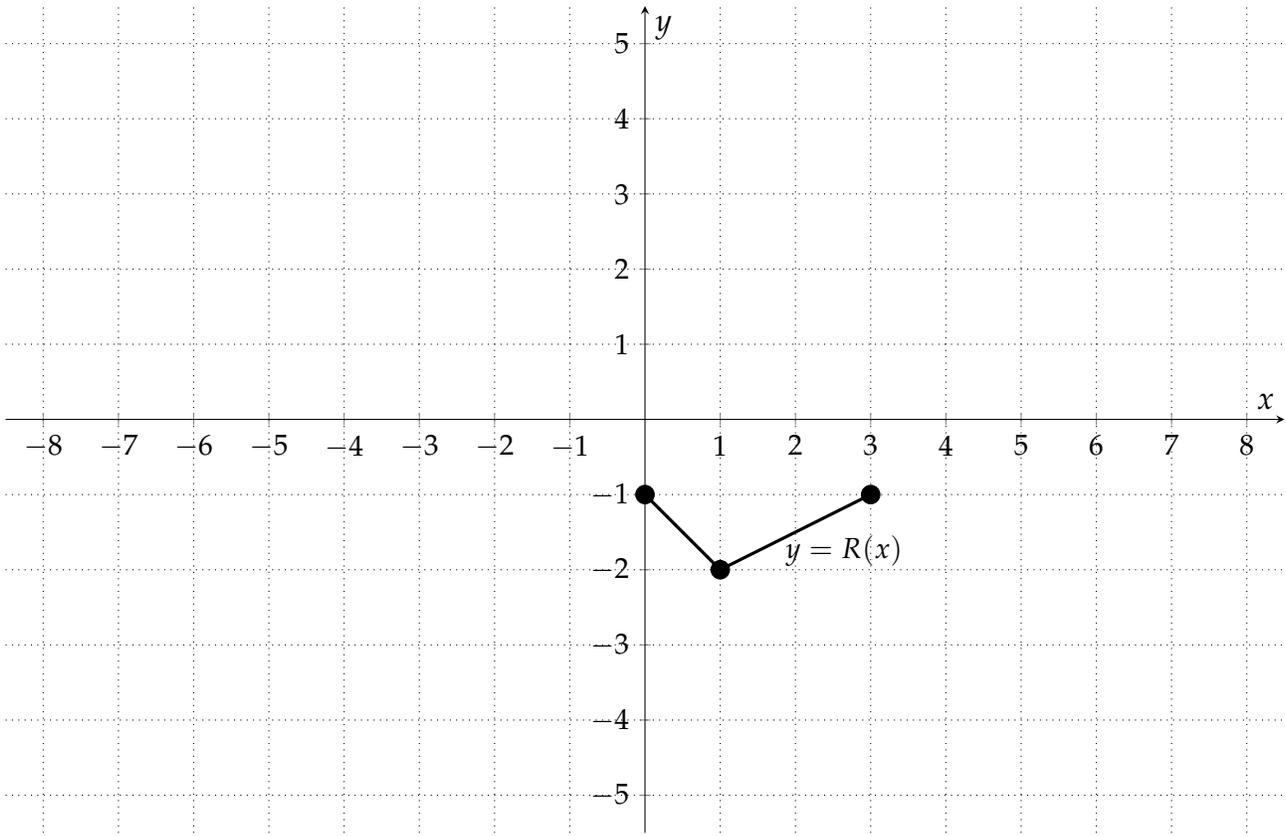

What is the **domain** and **range** of the function $R(x)$?
Domain: Range:

Draw and label the graphs of the following functions on the provided axes. Then write down their **domain** and **range**.

a) $A(x) = -R(x)$.
   Domain: Range:

b) $B(x) = 2R(x - 4) + 2$.
   Domain: Range:

c) $C(x) = R(\frac{1}{2}x + 3) - 2$.
   Domain: Range:

d) $D(x) = -R(x + 2) + 3$.
   Domain: Range:

2. Determine whether the following functions are **even**, **odd**, or **neither**.

a) $f(x) = 4x^5 + 2x$.   **Even**   **Odd**   **Neither**

b) $g(x) = 2x^2 + 3$.   **Even**   **Odd**   **Neither**

c) $h(x) = 4x^3 - 2x^2$.   **Even**   **Odd**   **Neither**

3. Describe with complete, English sentences how the graph of the functions below compares to the graph of $y = f(x)$. Be sure to use words like "shifted," "stretched," "compressed," "reflected," "horizontally," and "vertically."

a) $y = 3f(x+2) - 1$

b) $y = -f(x) + 5$