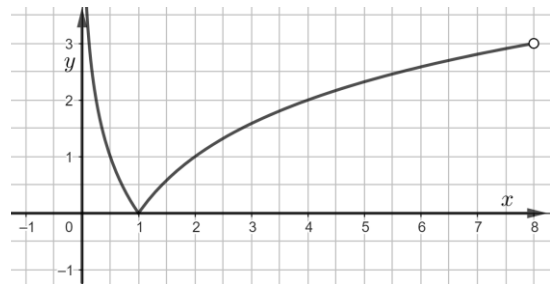


## Drawing piecewise functions - answers

**Task.** Draw a graph of the piecewise function defined below.

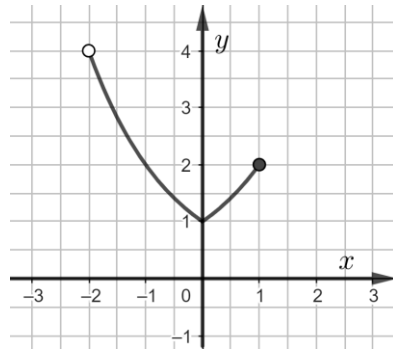
1.

$$f(x) = \begin{cases} \log_{\frac{1}{2}}(x) & \text{for } x \in (0, 1) \\ \log_2(x) & \text{for } x \in [1, 8) \end{cases}$$



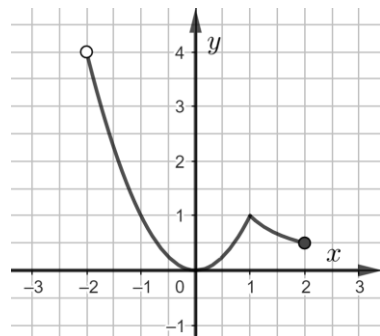
2.

$$f(x) = \begin{cases} \left(\frac{1}{2}\right)^x & \text{for } x \in (-2, 0) \\ 2^x & \text{for } x \in [0, 1] \end{cases}$$



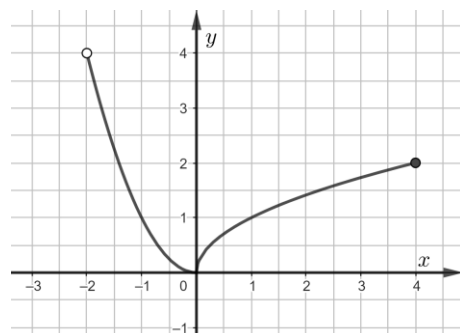
3.

$$f(x) = \begin{cases} x^2 & \text{for } x \in (-2, 1) \\ \frac{1}{x} & \text{for } x \in [1, 2] \end{cases}$$



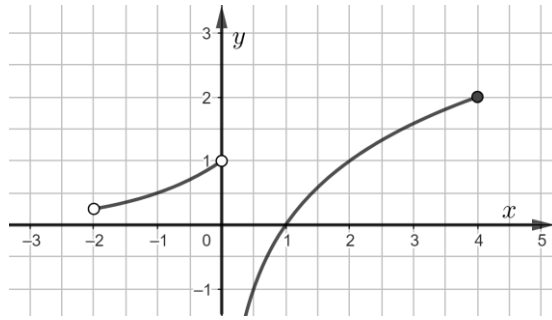
4.

$$f(x) = \begin{cases} x^2 & \text{for } x \in (-2, 0) \\ \sqrt{x} & \text{for } x \in [0, 4] \end{cases}$$



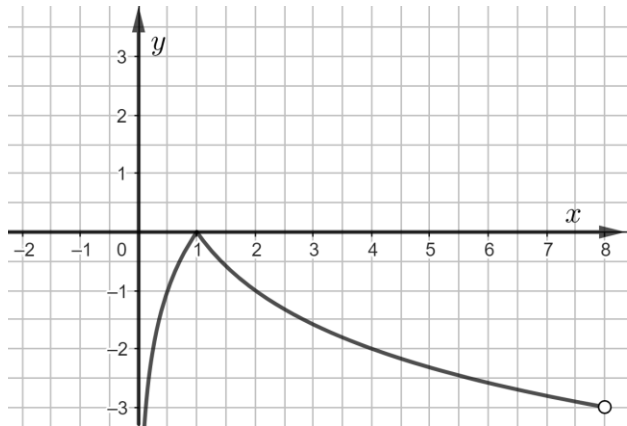
5.

$$f(x) = \begin{cases} 2^x & \text{for } x \in (-2, 0) \\ \log_2(x) & \text{for } x \in (0, 4] \end{cases}$$



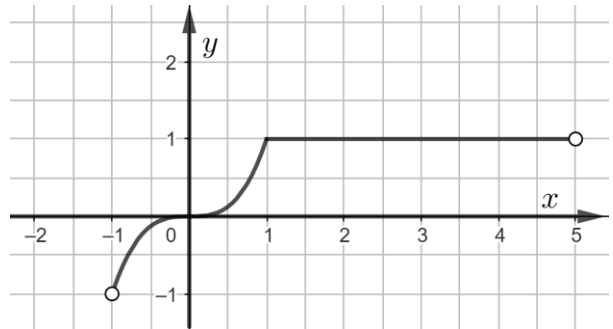
6.

$$f(x) = \begin{cases} \log_2(x) & \text{for } x \in (0, 1) \\ \log_{\frac{1}{2}}(x) & \text{for } x \in [1, 8) \end{cases}$$



7.

$$f(x) = \begin{cases} x^3 & \text{for } x \in (-1, 1) \\ 1 & \text{for } x \in [1, 5) \end{cases}$$



8.

$$f(x) = \begin{cases} 0 & \text{for } x \in \{-3, -2, -1\} \\ \sqrt{x} & \text{for } x \in [0, 4) \end{cases}$$

