

Exercise 40

Find $f \circ g \circ h$.

$$f(x) = |x - 4|, \quad g(x) = 2^x, \quad h(x) = \sqrt{x}$$

Solution

$$\begin{aligned} f \circ g \circ h &= f(g(h(x))) \\ &= |2^{\sqrt{x}} - 4| \end{aligned}$$

A plot of this function versus x is shown below.

