Exercise 34

For the following exercises, find functions $f(x)$ and $g(x)$ so the given function can be expressed as $h(x) = f(g(x))$.

$$h(x) = \left(\frac{8+x^3}{8-x^3}\right)^4$$

Solution

Choose

$$f(x) = x^4 \quad \text{and} \quad g(x) = \frac{8+x^3}{8-x^3}.$$