12 It is given that

- $f(x) = \pm\dfrac{1}{\sqrt{x}}, x > 0$

- $g(x) = \dfrac{x}{x-3}, x > 3$

- $h(x) = x^2 + 2, x \in \mathbb{R}$.

(a) Explain why $f(x)$ is **not** a function. [1]

(b) Find $gh(x)$. [2]

(c) State the domain of $gh(x)$. [1]