

12. Functions  $f$  and  $g$  are defined by

- $f(x) = \frac{1}{\sqrt{x}}$ , where  $x > 0$
- $g(x) = 5 - x$ , where  $x \in \mathbb{R}$ .

(a) Determine an expression for  $f(g(x))$ .

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(b) State the range of values of  $x$  for which  $f(g(x))$  is undefined.

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