



## 2019 P1 Q12

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  $f(g(x))$ .

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

## Answers

(a)  $\frac{1}{\sqrt{5-x}}$

(b)  $x \geq 5$