**6** Functions f and g are defined by

$$\mathrm{f}(x) = (x+3)^2 - 12 \quad \text{for } x \geqslant 0,$$

$$\mathrm{g}(x) = 2x - 5 \quad \text{for } x \in \mathbb{R}.$$

**(a)** State the range of f. [1]

.....

.....

.....

.....

**(b)** Find an expression for $\mathrm{f}^{-1}(x)$. [2]

.....

.....

.....

.....

.....

.....

**(c)** Solve the equation $\mathrm{gf}(x) = 69$. [4]

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....