9 Functions f and g are defined for $x > 3$ by

$$f : x \mapsto \frac{1}{x^2 - 9},$$
$$g : x \mapsto 2x - 3.$$

(i) Find and simplify an expression for $gg(x)$. [2]

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(ii) Find an expression for $f^{-1}(x)$ and state the domain of f^{-1}. [4]

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(iii) Solve the equation $\text{fg}(x) = \frac{1}{7}$. [4]