7 Functions f and g are defined by

$$f : x \mapsto 3x - 2, \quad x \in \mathbb{R},$$

$$g : x \mapsto \frac{2x + 3}{x - 1}, \quad x \in \mathbb{R}, \ x \neq 1.$$

(i) Obtain expressions for $f^{-1}(x)$ and $g^{-1}(x)$, stating the value of x for which $g^{-1}(x)$ is not defined. [4]

(ii) Solve the equation $fg(x) = \frac{7}{3}$. [3]

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