**15** The functions f and g are such that

$$f(x) = 2x - 3$$

$$g(x) = \frac{x}{3x + 1}$$

(a) State the value of $x$ that cannot be included in any domain of g

.....

**(1)**

(b) Find $gf(x)$
Simplify your answer.

$gf(x) =$ .....

**(2)**

(c) Express the inverse function $g^{-1}$ in the form $g^{-1}(x) = ...$

$g^{-1}(x) =$ .....

**(3)**

**(Total for Question 15 is 6 marks)**

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