Function notation – 2020 O Level Math D

1.

$$f(x) = \frac{3-2x}{5} \qquad g(x) = \frac{x-7}{4}$$

(a) Find f(−4).

.... [1]
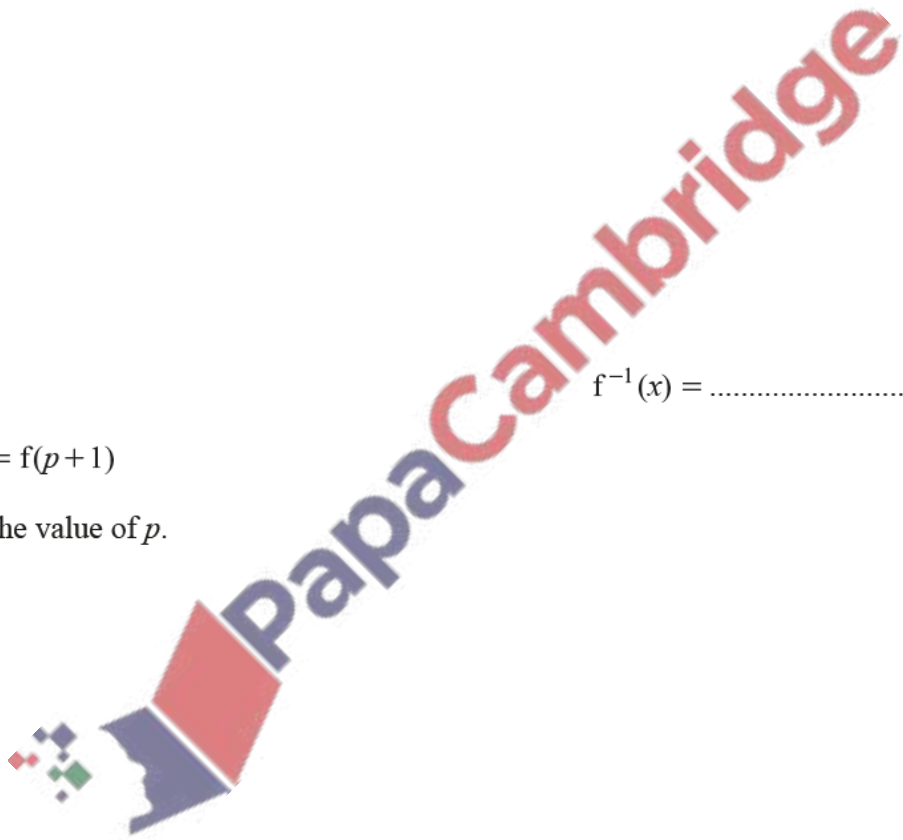
(b) Find $f^{-1}(x)$.

$f^{-1}(x) =$ .... [3]

(c) $g(p) = f(p+1)$

Find the value of p.

$p =$ .... [3]

2.

$$f(x) = 4(2-x) \qquad g(x) = 7 - \frac{3x}{5}$$

(a) Find $f(-5)$.

.... [1]

(b) Solve the inequality $f(x) > 3$.

.... [2]

(c) Find $f^{-1}(x)$.

$f^{-1}(x) = $ .... [2]

(d) $f(p) = g(2p+1)$

Find the value of p.

$p = $ .... [3]
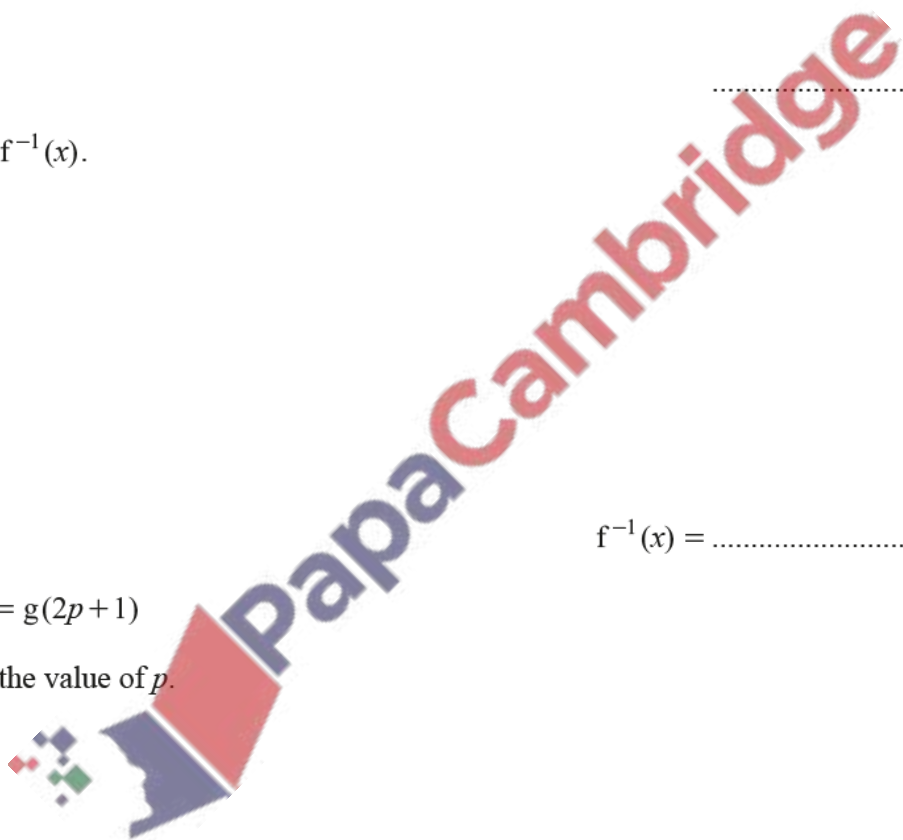
$$f(x) = 5 - 4x$$

(a) Find $f(-3)$.

.... [1]

(b) Find $f^{-1}(x)$.

$f^{-1}(x) = $ .... [2]

4.
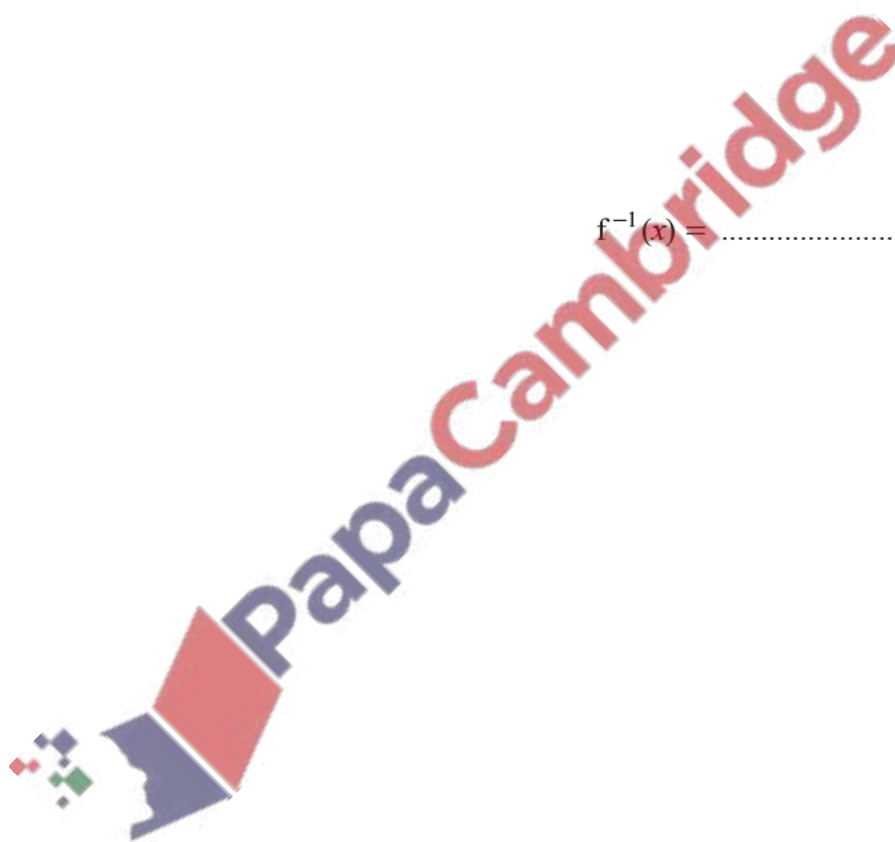
$$f(x) = 4(3-x) \qquad g(x) = \frac{5(3x-2)}{x}$$

(a) Find $f^{-1}(x)$.

$f^{-1}(x) = $ .... [2]

(b) Solve $g(x) = 6$.

$x = $ .... [3]