

1. Nov/2021/Paper\_11/No.21

$$f(x) = \frac{6}{2-x}$$

(a) Find  $f(-1)$ .

..... [1]

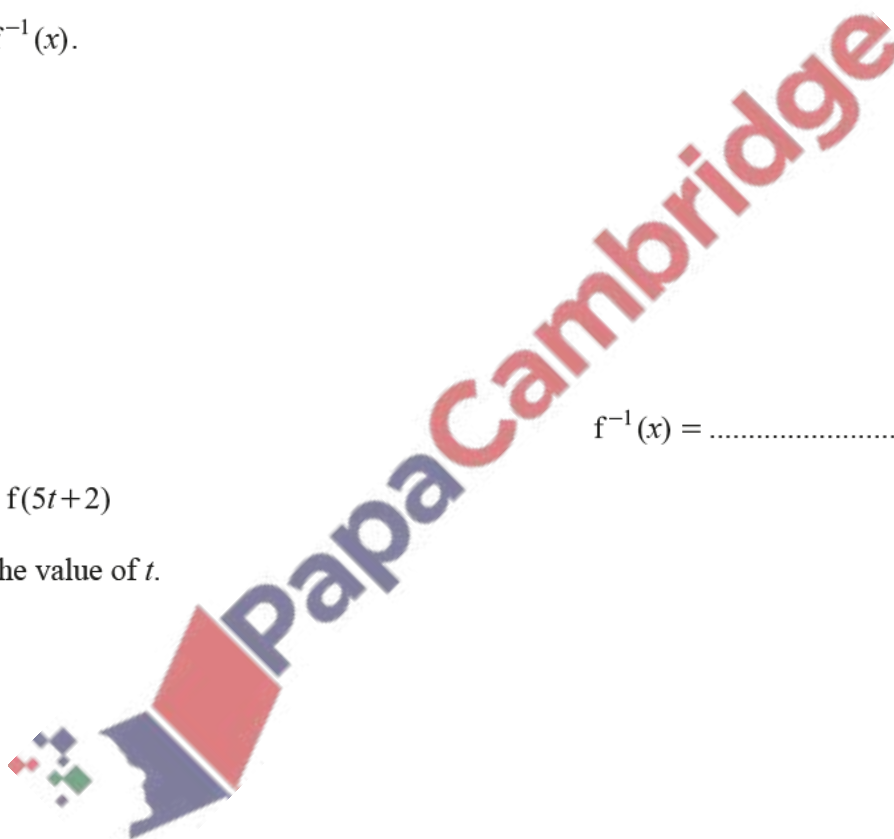
(b) Find  $f^{-1}(x)$ .

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

(c)  $f(t) = f(5t+2)$

Find the value of  $t$ .

$t =$  ..... [3]



2. Nov/2021/Paper\_12/No.24

$$f(x) = 2x^2 + 7x + 4$$

$$g(x) = 2x + 6$$

(a) Find

(i)  $f(3)$ ,

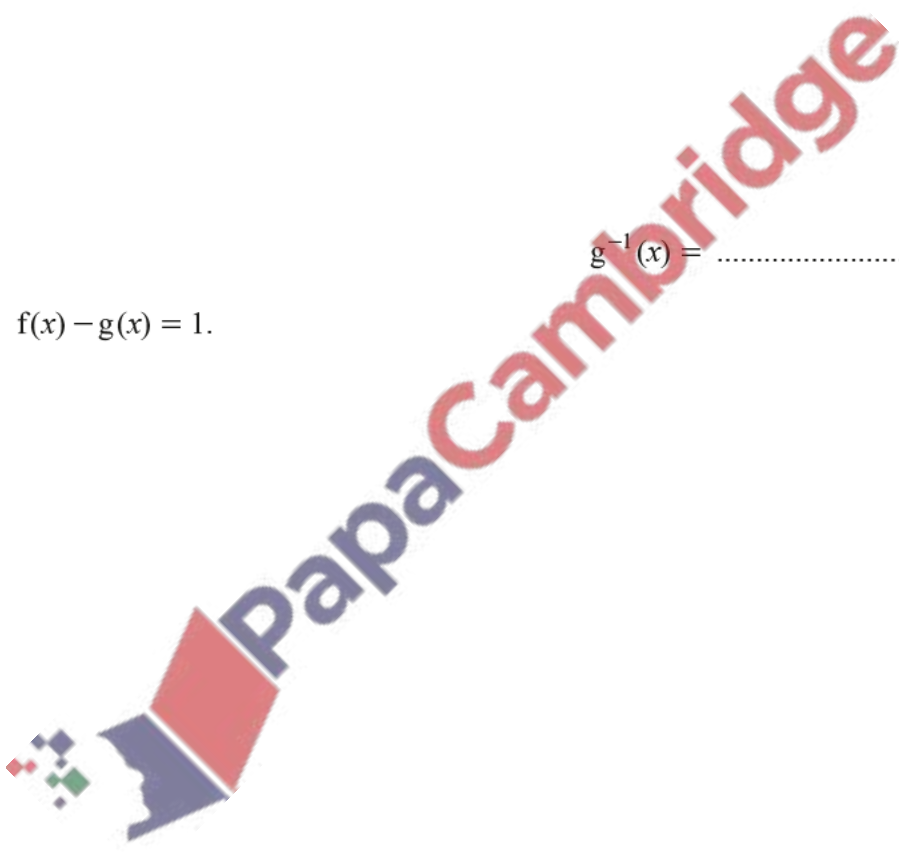
..... [1]

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

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

(b) Solve  $f(x) - g(x) = 1$ .

$x =$  ..... or  $x =$  ..... [3]



$$f(x) = 2x + 3 \qquad g(x) = \frac{12 - 3x}{5}$$

(a) Find  $g(-1)$ .

..... [1]

(b) Solve  $f(x) = 2$ .

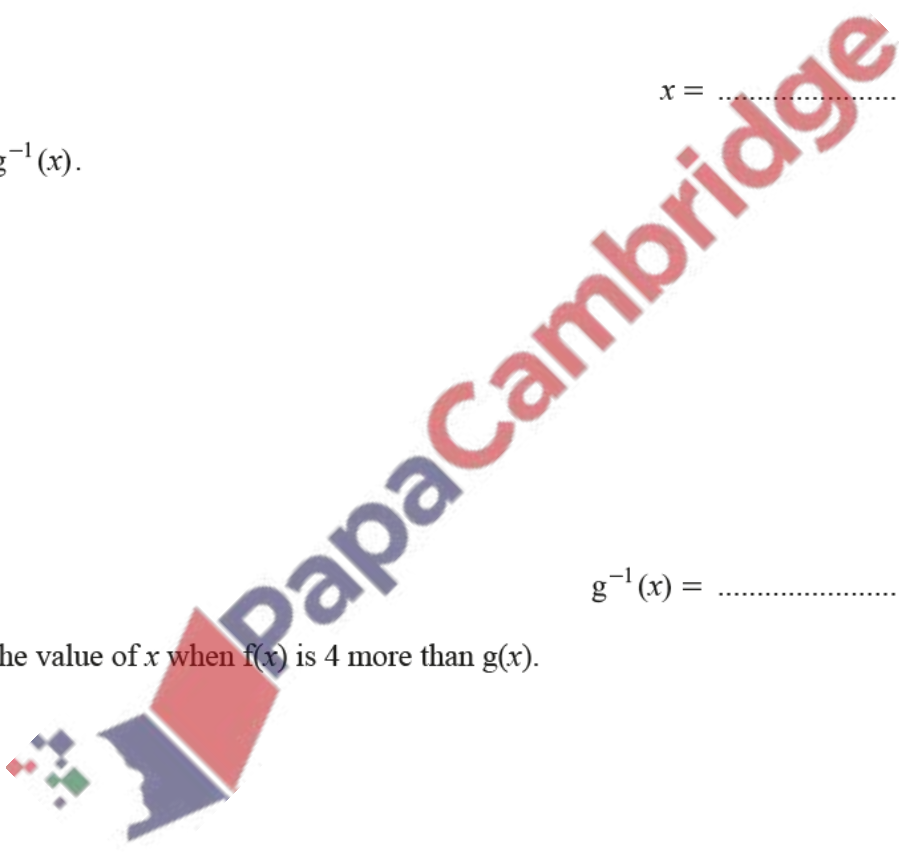
$x =$  ..... [2]

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

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

(d) Find the value of  $x$  when  $f(x)$  is 4 more than  $g(x)$ .

$x =$  ..... [4]



$$f(x) = 3x - 5 \quad g(x) = \frac{4x + 4}{3}$$

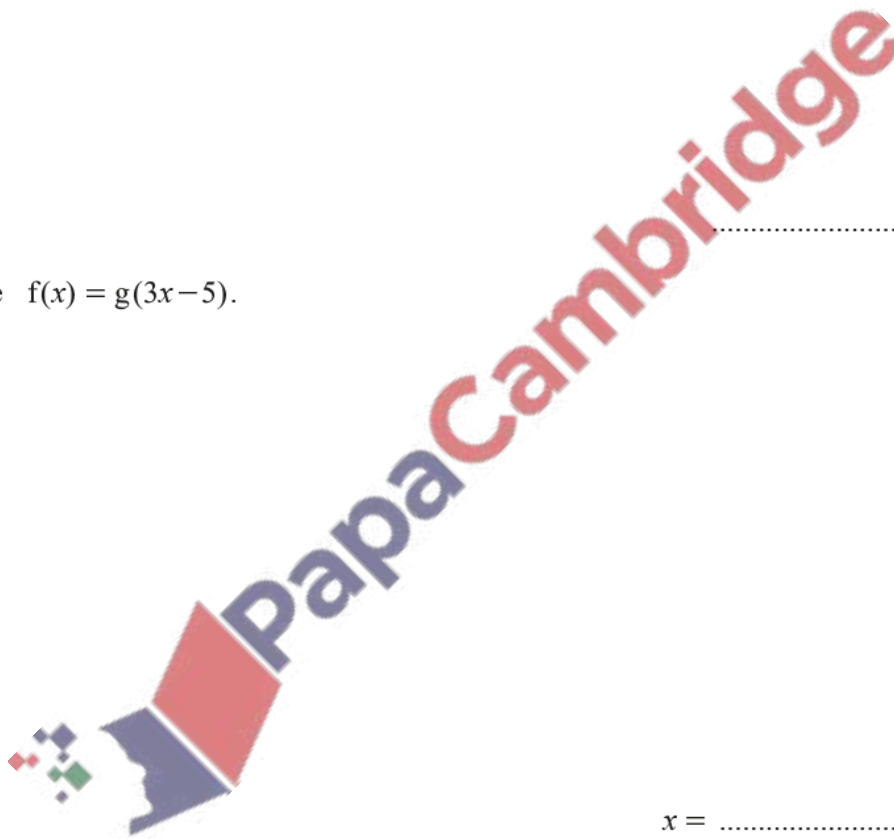
(a) Find  $f(-2)$ .

..... [1]

(b) Find the largest integer satisfying  $f(x) > 3g(x)$ .

..... [3]

(c) Solve  $f(x) = g(3x - 5)$ .



$x =$  ..... [3]

(d) Solve  $g^{-1}(x) = 5$ .

$x =$  ..... [1]