Function notation – 2021 O Level Math D

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

$f(x) = 2x^2 + 7x + 4$ $\quad\quad$ $g(x) = 2x + 6$

(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]

3. June/2021/Paper_21/No.6

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

(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]

4. June/2021/Paper_21/No.8

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

(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]