

Al Moattasem International School

Jubail

Level 9 – Revision Work Sheet 4

Chapter 8

Topic Functions

1) If,

Two functions are given as $h : x \mapsto x^2 - 4$ and $g : x \mapsto 10x + 5$.

(a) $h(1)$

(b) $h(-2)$

(c) $h(0)$

(d) $g(3)$

(e) $g(-1)$

(f) the values of x such that $h(x) = 12$

2) If two functions are given as $f(x) = 2x + 3$, and $g(x) = 3 - x^2$, then

(a) $f(2)$

(b) $f(-3)$

(c) $g(0)$

(d) $g(4)$

3)

Find the numbers which map to zero under the function

$$h : x \mapsto x^2 - 9.$$

4)

Draw a flow diagram for the two functions given by

$$(a) k : x \mapsto (3x - 2)^2, \quad (b) g(x) = \frac{4x - 2}{3}.$$

5) Draw flow diagrams for each of the following functions.

$$(a) h : x \mapsto 6x + 1 \quad (b) h : x \mapsto 4(3 - 2x) \quad (c) h : x \mapsto (2x - 5)^2$$
$$(d) g : x \mapsto 3x^2 - 4 \quad (e) g : x \mapsto \frac{2x^2}{3} + 5 \quad (f) g : x \mapsto \sqrt{x^2 + 2}$$