

Worksheet: Functions 2

Name _____

Date _____

Answer ALL questions.

1. The functions f and g are defined by :

$$f : x \rightarrow 5 + 2x \qquad g : x \rightarrow \frac{x-3}{2}$$

Evaluate the following functions:

(a) $fg(-3)$	(b) $g^{-1}(12)$
--------------	------------------

2. Given that $f(x) = \frac{x-3}{2}$ and $g(x) = 7x - 5$ find the values of :

(a) $fg(2)$	(b) $gf^{-1}(10)$.
-------------	---------------------

3. The functions g , h and k are defined as follows:

$$g(x) = 8x + 7$$

$$h(x) = \frac{2-x}{4}$$

$$k(x) = \frac{5}{3x} + 6$$

(i) Evaluate:

(a) $g(-2)$

Evaluate: (b) $gh(3)$

--	--

(ii) Write expressions for:

(a) $k^{-1}(x)$

--	--

(i) Write expressions for:

(b) $gg(x)$	
-------------	--