

Function notation

- 1. f(x) = 2x + 1
- (a) Find f(3)
- (b) Find f(-2)

- $2. f(x) = 3x^2 + 10$
- (a) Find f(2)
- (b) Find f(-1)



Composite functions

$$(f \circ g)(x) = f(g(x))$$

1.
$$f(x) = 3x$$
 and $g(x) = 2x + 1$. Find $(f \circ g)(x)$.



Exercise

Paper 1

1.		Let f(x)	= 2x -	1 and	g(x)	$=3x^2$	+ 2.
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- (a) Find $f^{-1}(x)$.
- (b) Find $(f \circ g)(1)$.

IBDP Mathematics (SL) Composite and inverse function



(a) Find f^{-1} (2)	x).
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(b) Let g be a function so that $(f \circ g)(x) = 8x^6$. Find g(x).



Paper 2

Let $f(x) = 3x$, $g(x) = 2x - 5$ and $h(x) = (f \circ g)(x)$.
a) Find <i>h(x)</i> .
b) Find $h^{-1}(x)$.

IBDP Mathematics (SL) Composite and inverse function



2. Let $f(x) = 2x + 4$ and $g(x) = 7x$	2
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- (a) Find $f^{-1}(x)$.
- (b) Find $(f \circ g)(x)$.
- (c) Find $(f \circ g)(3.5)$.