

National 5: Functions

Q1 $f(x) = 4x - 1$. Evaluate:

a) $f(3)$

b) $f(-2)$

c) $f(0)$

Q2 $g(x) = x^2 + 3$. Evaluate:

a) $g(2)$

b) $g(-1)$

c) $g(-2)$

Q3 $f(x) = 1 + 4x - x^2$. Evaluate:

a) $f(1)$

b) $f(2)$

c) $f(-2)$

Q4 $h(x) = \sqrt{3x + 4}$. Evaluate:

a) $h(4)$

b) $h(0)$

c) $h(7)$

Q5 $f(x) = x^3 + 2x$. Evaluate:

a) $f(1)$

b) $f(-2)$

c) $f(4)$

Q6 $f(x) = \frac{3}{\sqrt{x}}$. Evaluate:

a) $f(1)$

b) $f(9)$

c) $f(0)$

Q7 The function f is defined as $f(x) = 2x + 3$. Given that $f(a) = 11$, find the value of a .

Q8 The function f is defined as $f(x) = x^3 + 2$. Given that $f(t) = 29$, find the value of t .

Q9 The function f is defined as $f(x) = x^2 - 1$. Given that $f(r) = 3$, find two possible values of r .

Q10 The function f is defined as $f(x) = 2\sqrt{x}$. Given that $f(a) = 10$, find the value of a .

Q11 The function g is defined as $g(x) = 5x^3$. Given that $g(i) = 40$, determine the value of i .

Q12 The function t is defined as $t(x) = \tan x^\circ$. Given that $t(n) = \sqrt{3}$ and $0 < n < 90$, find n .