Answer key

The method: Evaluating functions

Put the number in for every x, in parentheses. Then follow the order of operations.

$f(x) = \frac{x - 7}{x + 8}$; $f(3) = -\frac{4}{11}$

$f(3) = \frac{3 - 7}{3 + 8} = \frac{-4}{11}$ simplify the top and the bottom first

$f(x) = -3x^2 - x + 3$; $f(2) = -11$

$f(2) = -3(2)^2 - (2) + 3 = -11$ put the number in for every x

$f(x) = \sqrt{3x + 4}$; $f(-1) = 1$

$f(-1) = \sqrt{3(-1) + 4} = \sqrt{1} = 1$ work out what is under the root first

Problems 1 and 2 worked out · Version 0A

$f(x) = \sqrt{2x + 19}$; $f(-5) = 3$

$f(-5) = \sqrt{2(-5) + 19} = \sqrt{9} = 3$ work out what is under the root first

$f(x) = -2x^2 + 7x + 5$; $f(-5) = -80$

$f(-5) = -2(-5)^2 + 7(-5) + 5 = -80$ put the number in for every x

Evaluating functions · Version 0A

1) 3 2) −80 3) 5 4) −15 5) 79 6) −12

7) −119 8) $-\frac{1}{8}$ 9) 78 10) 2 11) 2 12) 4

13) $-\frac{1}{7}$ 14) −75 15) 3 16) $\frac{3}{5}$ 17) 2