

Tutorial 7

Use bisection method for the following:

1. Given that $f(x) = x^3 + 2x - 2$.

a) Complete the following table.

x	0	1	2
$f(x)$			

b) Find an interval of width 1 unit that contains a root.

c) Find the value of the root (correct to 1 dp)

2. Given that $f(x) = 2x^4 - 3x - 5$.

a) Complete the following table.

x	0	1	2	3
$f(x)$				

b) Find an interval of width 1 unit that contains a root.

c) Find the value of the root (correct to 2 dp)

Solutions

1. b) $0 < \text{root} < 1$ c) 0.8
2. b) $1 < \text{root} < 2$ c) 1.47