

# EXERCISE 1:

## A)

Answer A: Inconclusive!

Answer B: Has at least one root!

Answer C: Inconclusive!

## B)

Answer A: Inconclusive!

Answer B: Inconclusive!

Answer C: Has at least one root!

## C)

Answer A: Inconclusive!

Answer B: Has at least one root!

Answer C: Inconclusive!

# Exercise 2

## A

$X = -0.625$

a	b	x0	fa	fx0	signal	erro
-1.00	0.0	0.00	-0.632121	1.000000	-	1.00
-1.00	-0.5	-0.50	-0.632121	0.106531	-	0.50
-0.75	-0.5	-0.75	-0.632121	-0.277633	+	0.25

**B**

X = -0.5625

<b>a</b>	<b>b</b>	<b>x0</b>	<b>fa</b>	<b>fx0</b>	<b>signal</b>	<b>erro</b>
-1.000	0.0	0.000	-0.632121	1.000000	-	1.000
-1.000	-0.5	-0.500	-0.632121	0.106531	-	0.500
-0.750	-0.5	-0.750	-0.632121	-0.277633	+	0.250
-1.000	0.0	0.000	1.718282	-1.000000	-	1.000
-1.000	-0.5	-0.500	1.718282	-0.101279	-	0.500
-0.750	-0.5	-0.750	1.718282	0.679500	+	0.250
-0.625	-0.5	-0.625	0.679500	0.258871	+	0.125

**C**

X = 1.71875

<b>a</b>	<b>b</b>	<b>x0</b>	<b>fa</b>	<b>fx0</b>	<b>signal</b>	<b>erro</b>
-1.0000	0.00	0.0000	-0.632121	1.000000	-	1.0000
-1.0000	-0.50	-0.5000	-0.632121	0.106531	-	0.5000
-0.7500	-0.50	-0.7500	-0.632121	-0.277633	+	0.2500
-1.0000	0.00	0.0000	1.718282	-1.000000	-	1.0000
-1.0000	-0.50	-0.5000	1.718282	-0.101279	-	0.5000
-0.7500	-0.50	-0.7500	1.718282	0.679500	+	0.2500
-0.6250	-0.50	-0.6250	0.679500	0.258871	+	0.1250
1.5000	2.00	1.5000	-2.000000	-0.750000	+	0.5000
1.5000	1.75	1.7500	-0.750000	0.062500	-	0.2500

<b>a</b>	<b>b</b>	<b>x0</b>	<b>fa</b>	<b>fx0</b>	<b>signal</b>	<b>erro</b>
1.6250	1.75	1.6250	-0.750000	-0.359375	+	0.1250
1.6875	1.75	1.6875	-0.359375	-0.152344	+	0.0625

## D

X = 1.9375

<b>a</b>	<b>b</b>	<b>x0</b>	<b>fa</b>	<b>fx0</b>	<b>signal</b>	<b>erro</b>
-1.0000	0.00	0.0000	-0.632121	1.000000	-	1.0000
-1.0000	-0.50	-0.5000	-0.632121	0.106531	-	0.5000
-0.7500	-0.50	-0.7500	-0.632121	-0.277633	+	0.2500
-1.0000	0.00	0.0000	1.718282	-1.000000	-	1.0000
-1.0000	-0.50	-0.5000	1.718282	-0.101279	-	0.5000
-0.7500	-0.50	-0.7500	1.718282	0.679500	+	0.2500
-0.6250	-0.50	-0.6250	0.679500	0.258871	+	0.1250
1.5000	2.00	1.5000	-2.000000	-0.750000	+	0.5000
1.5000	1.75	1.7500	-0.750000	0.062500	-	0.2500
1.6250	1.75	1.6250	-0.750000	-0.359375	+	0.1250
1.6875	1.75	1.6875	-0.359375	-0.152344	+	0.0625
1.5000	2.00	2.0000	-3.625000	1.000000	-	0.5000
1.7500	2.00	1.7500	-3.625000	-1.640625	+	0.2500
1.8750	2.00	1.8750	-1.640625	-0.408203	+	0.1250

## E

X = 0.640625

<b>a</b>	<b>b</b>	<b>x0</b>	<b>fa</b>	<b>fx0</b>	<b>signal</b>	<b>erro</b>
-1.0000	0.00000	0.00000	-0.632121	1.000000	-	1.00000
-1.0000	-0.50000	-0.50000	-0.632121	0.106531	-	0.50000
-0.7500	-0.50000	-0.75000	-0.632121	-0.277633	+	0.25000
-1.0000	0.00000	0.00000	1.718282	-1.000000	-	1.00000
-1.0000	-0.50000	-0.50000	1.718282	-0.101279	-	0.50000
-0.7500	-0.50000	-0.75000	1.718282	0.679500	+	0.25000
-0.6250	-0.50000	-0.62500	0.679500	0.258871	+	0.12500
1.5000	2.00000	1.50000	-2.000000	-0.750000	+	0.50000
1.5000	1.75000	1.75000	-0.750000	0.062500	-	0.25000
1.6250	1.75000	1.62500	-0.750000	-0.359375	+	0.12500
1.6875	1.75000	1.68750	-0.359375	-0.152344	+	0.06250
1.5000	2.00000	2.00000	-3.625000	1.000000	-	0.50000
1.7500	2.00000	1.75000	-3.625000	-1.640625	+	0.25000
1.8750	2.00000	1.87500	-1.640625	-0.408203	+	0.12500
0.5000	0.75000	0.75000	-0.443147	0.274818	-	0.25000
0.6250	0.75000	0.62500	-0.443147	-0.079379	+	0.12500
0.6250	0.68750	0.68750	-0.079379	0.097963	-	0.06250
0.6250	0.65625	0.65625	-0.079379	0.009451	-	0.03125