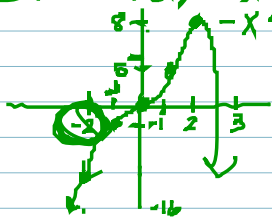


Pg 357

6.4: Analyzing Graph of Polynomial Functions

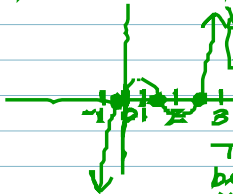
Ex#1: $f(x) = -x^4 + x^3 + 3x^2 + 2x$



2nd Table
 Tbl start = -2
 $\Delta Tbl = 1$
 Indp. = Auto
 Dep = Auto

X	Y
-2	-20
-1	-1
0	0
1	5
2	8
3	-21

Ex#2: $f(x) = x^3 - 4x^2 + 3x + 1$ (Consecutive integers between real zeros)

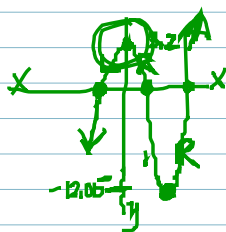


2nd Table
 Tbl start = -2
 $\Delta Tbl = 1$

X	Y
-2	-29
-1	-7
0	1
1	1
2	-1
3	13

There are zeros between $x = -1$ and 0 , $x = 1$ and 2 , $x = 2$ and 3 .
 -7 → sign change
 1 → sign change
 -1 → sign change

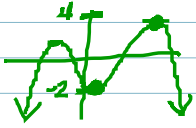
Ex#3: $f(x) = x^3 - 4x^2 - 2x + 3$



2nd Calc 4: Max (enter)
 MAX = 3.2316
 2nd Calc 3: min
 Min = -12.05

D = all Real#
 R = all Real#

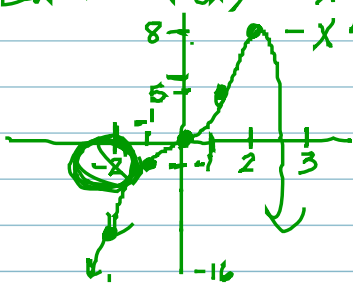
Ex#4)



D = all Real#
 $R \leq 4$

6.4: Analyzing Graph of Polynomial Functions

EX#1: $f(x) = -x^4 + x^3 + 3x^2 + 2x$



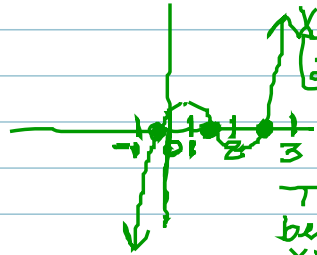
2nd | Tbl set

Tbl Start = -2
 $\Delta Tbl = 1$
 Indp. : Auto
 Dep : Auto

2nd | Table

X	Y
-2	-16
-1	-1
0	0
1	5
2	8
3	-21

EX#2: $f(x) = x^3 - 4x^2 + 3x + 1$ (Consecutive integers between real zeros)



2nd | Tbl set

Tbl Start = -2
 $\Delta Tbl = 1$

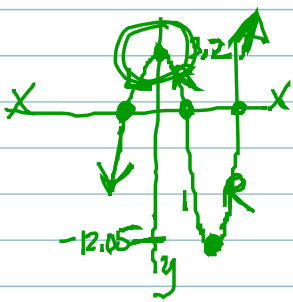
2nd | Table

X	Y
-2	-29
-1	-7
0	1
1	-1
2	1
3	3

There are zeros between $x=-1$ and 0 , $x=1$ and 2 , $x=2$ and 3

-1 -> sign change
 0 -> sign change
 1 -> sign change

EX#3: $f(x) = x^3 - 4x^2 - 2x + 3$

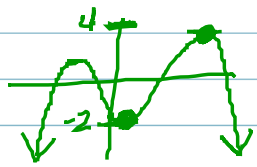


2nd | Calc | 4: Max | enter

MAX = 3.236
 2nd | Calc | 3: Min
 Min = -12.05

D = all Real #
 R = all Real #

EX#4)



D = all Real #
 R ≤ 4