



Math Virtual Learning

Algebra 2A

Polynomial Parent Functions

May 12, 2020



Lesson:

Sketching Polynomial Parent Functions

Learning Target:

LT C2 I can identify key features (zeros, multiplicity, end behavior, y-intercept, local minimums and maximums, turning points, transformations).

Objective:

Students will be able to identify parts of a graph.

Warm Up

Name the parent function and list the transformations that have taken place:

1. $y = |x + 3| - 2$

2. $y = (x - 2)^2 + 5$

3. $y = 3x^3 - 6$

Warm Up Answers

1. $y = |x|$, left 3 units, down 2 units

2. $y = x^2$, right 2 units, up 5 units

3. $y = x^3$, down 6 units, dilation of 3

Lesson

Today we will be defining the zeros, minimum, and maximum of a graph. We will then practice finding these on a graph.

[Finding zeros from a graph](#)

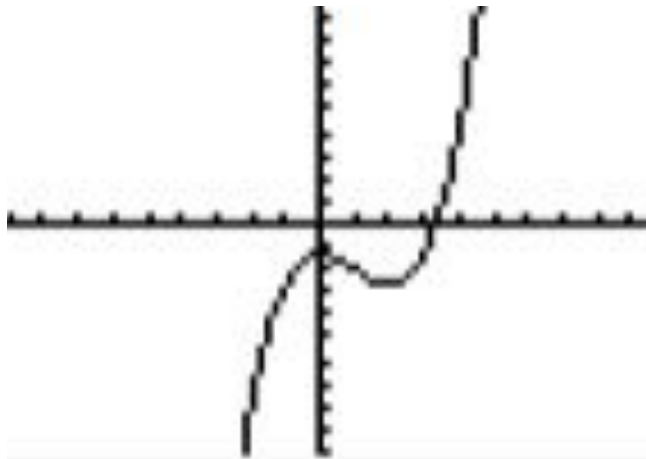
[Identifying the relative max and min values of a function:](#)

<https://www.youtube.com/watch?v=>

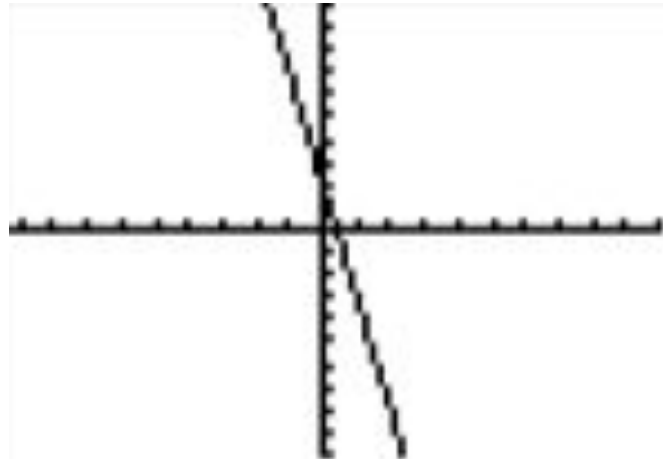
Practice

For the following graphs label the zeros, maximums, and minimums.

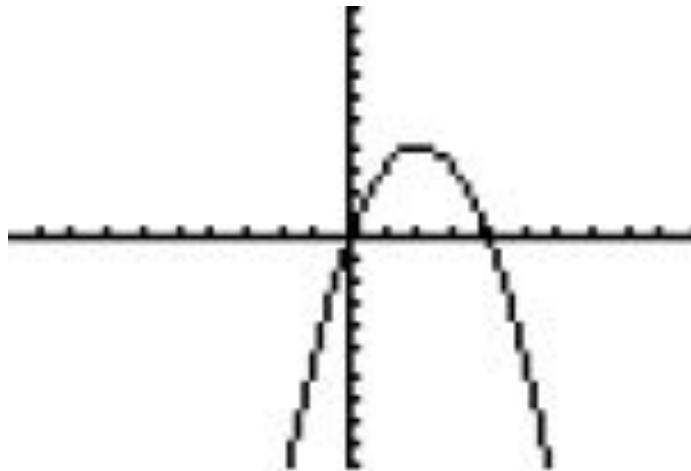
1.



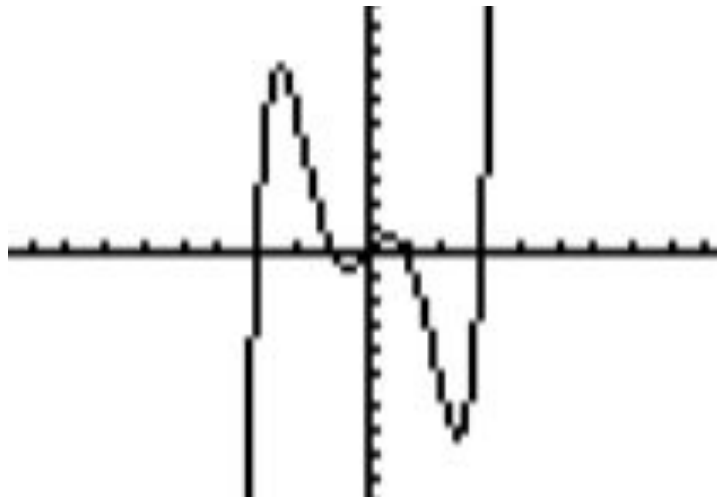
2.



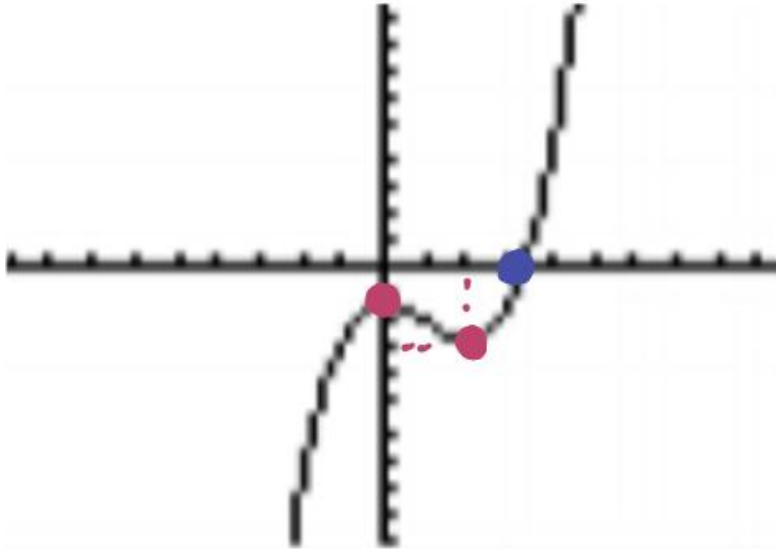
3.



4.



1.



Zeros: $(3, 0)$

Min: $(0, 1)$

Max: $(2, -2)$

Practice Answers

2.

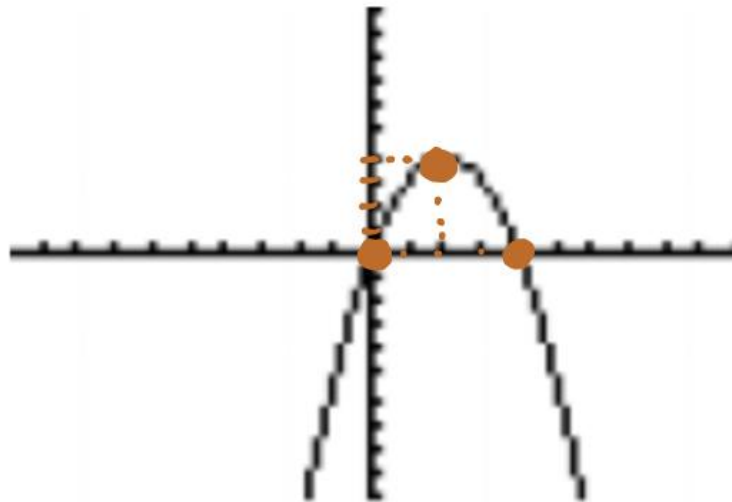


Zeros: $(0.5, 0)$

Min: none

Max: none

3.

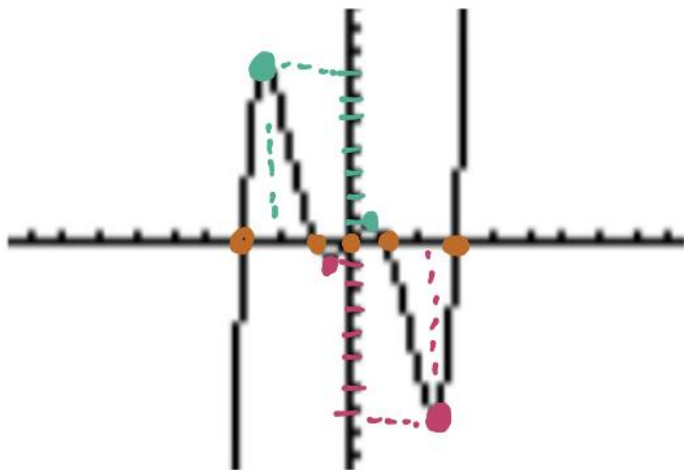


Zeros : $(0,0)$, $(4,0)$

Min : None

Max $(2,4)$

4.



Zeros : $(-3, 0)$ $(-1, 0)$ $(0, 0)$
 $(1, 0)$ $(3, 0)$

Min : $(-0.5, -1)$ $(-7, 2)$

Max : $(7, -2)$ $(0.5, 1)$