



Math Virtual Learning

Algebra 2A

Polynomial Parent Functions

May 15, 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

For the two warm up problems, name the parent function and describe the transformation.

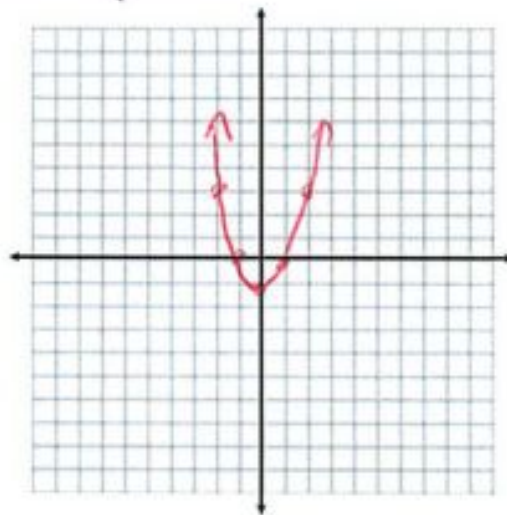
1. $g(x) = x^2 - 1$

2. $f(x) = |x - 1| + 3$

Warm Up Answer

1. $g(x) = x^2 - 1$ Parent: x^2

Transformations: down 1

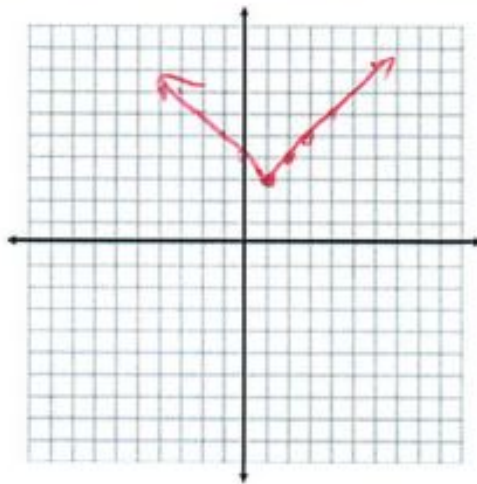


Warm Up Answer

2. $f(x) = |x-1| + 3$

Parent: $|x|$

Transformations: right 1 up 3



Lesson

For today, we are going to start looking at the equations of polynomials. We will be learning about turning points for a graph as well as the maximum number of zeros. We will then be reviewing everything we have learned from this week.

<https://www.youtube.com/watch?v=NCFSN1Bm4eU>

<https://www.youtube.com/watch?v=9WW0EetLD4Q>

<https://www.youtube.com/watch?v=-ZwTxxKfj2o>

Practice

What are the maximum number of of turning points and maximum number of zeros for each of the following:

1. $f(x) = x^2 + x - 6$

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

3. $f(x) = 2x^3 + 5x^2 + 7x - 2$

4. $f(x) = x^5 + 3x^2 + x + 4$

Solutions to Practice Problems

Turning Points

Zeros

1.	1	2
2.	3	4
3.	2	3
4.	4	5