

Parent Guide to the

# **Polynomial Function Graphing**

### Today's Standard

HSF.IF.C7c - Graph polynomial functions, identifying zeros when suitable factorizations are available, and showing end behavior.

## Real-World Applications for this Standard

Predicting profit and loss in business scenarios; Modeling population growth or decline; Analyzing the trajectory of projectiles in physics; Engineering design and stress analysis; Financial forecasting and budgeting

#### Today | Learned

Today, we learned how to graph polynomial functions. We found the zeros, which are the points where the graph touches or crosses the x-axis, and we looked at how the graph behaves at the ends.

## **Common Stumbling Blocks**

Sometimes, students think the graph always crosses the x-axis at the zeros, but it can just touch it. Also, they might think the graph's ends always look the same, but the leading number changes this.

### Quiz Me

- What is a zero?
- Where does the graph touch the x-axis?
- What happens to the graph at the ends?
- Can the graph only touch the x-axis?
- Does the leading number change the graph?

#### Help Me

A polynomial graph can show us things like profits in a business. The zeros are important because they tell us where the profit is zero. The ends of the graph help us see what happens when we keep going further.