

UNIT 1 - LESSON PLANS

Class PreCalculus Topic Parent Functions and Transformations

Lesson 5 Of 1

Objective

Students will:

- Compare properties of two functions each represented in a different way.
- Identify the effect on the graph of replacing $f(x)$ by $f(x) + k$, $k f(x)$, $f(kx)$, and $f(x + k)$ for specific values of k (both positive and negative); find the value of k given the graphs.
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I can compare properties of two functions each represented in a different way.

"I Can" Statement

I can identify the effect on the graph of replacing $f(x)$ by $f(x) + k$, $k f(x)$, $f(kx)$, and $f(x + k)$ for specific values of k (both positive and negative); find the value of k given the graphs.

Common Core Standards

CCSS.MATH.CONTENT.HSF.IF.C.9

Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions). For example, given a graph of one quadratic function and an algebraic expression for another, say which has the larger maximum.

CCSS.MATH.CONTENT.HSF.BF.B.3

Identify the effect on the graph of replacing $f(x)$ by $f(x) + k$, $k f(x)$, $f(kx)$, and $f(x + k)$ for specific values of k (both positive and negative); find the value of k given the graphs. Experiment with cases and illustrate an explanation of the effects on the graph using technology. Include recognizing even and odd functions from their graphs and algebraic expressions for them.

Bell Work

See 1-5 Bell work

Procedures

1. Start and lead student discussion related to the bell work.
2. Distribute the Guided Notes
3. Present lesson or play a video lesson.
4. Use an Online Activity if time permitted.
5. Distribute Lesson Assignment.

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Assessment

Bell Work 1-5
Assignment 1-5
Exit Quiz 1-5

Additional Resources

See Online Activities