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Resource ID#: 42192

Primary Type: Problem-Solving Task

Sum of Even and Odd

Students explore and manipulate expressions based on the following statement:

A function f defined for $-a < x < a$ is even if $f(-x)=f(x)$ and is odd if $f(-x)=-f(x)$ when $-a < x < a$. In this task we assume f is defined on such an interval, which might be the full real line (i.e., $a=8$).

Sum of Even and Odd (Microsoft Word): This file includes the task and related information in Microsoft Word format.

Sum of Even and Odd (pdf): This file includes the task and related information in PDF format.

General Information

Subject(s): Mathematics

Grade Level(s): 9, 10, 11, 12

Intended Audience: [Educators](#), [Students](#), [Parents](#)

Freely Available: Yes

Keywords: sum of even and odd, sum, even, odd, function, greater than, less than, negative, infinity, equations, system, denominator, numerator, cpalms, icpalms, illustrativemathematics.org, illustrative mathematics, tasks, mathematics, math, Florida standards, resource, free, freely available, problems-based learning, student activities

Instructional Component Type(s): [Problem-Solving Task](#)

Resource Collection: Illustrative Mathematics

Source and Access Information

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Is this Resource freely Available? Yes

Access Privileges: Public

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Aligned Standards

Name	Description
MAFS.912.F-IF.2.4:	For a function that models a relationship between two quantities, interpret key features of graphs and tables in terms of the quantities, and sketch graphs showing key features given a verbal description of the relationship. Key features include: intercepts; intervals where the function is increasing, decreasing, positive, or negative; relative maximums and minimums; symmetries; end behavior; and periodicity. ★