

COLORING ACTIVITY

Tests for Symmetry & Even/Odd Functions

TESTS FOR SYMMETRY & EVEN/ODD FUNCTIONS

Determine if the relations are symmetric to justify color the picture accordingly. (For example, if $-x^4 + 2x^2$)

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x-axis | Light Blue

y-axis | Orange

origin | Red

ALL | Dark Purple

3 $y = 2\sqrt[3]{x}$

x-axis | Red

y-axis | Dark Green

origin | Yellow

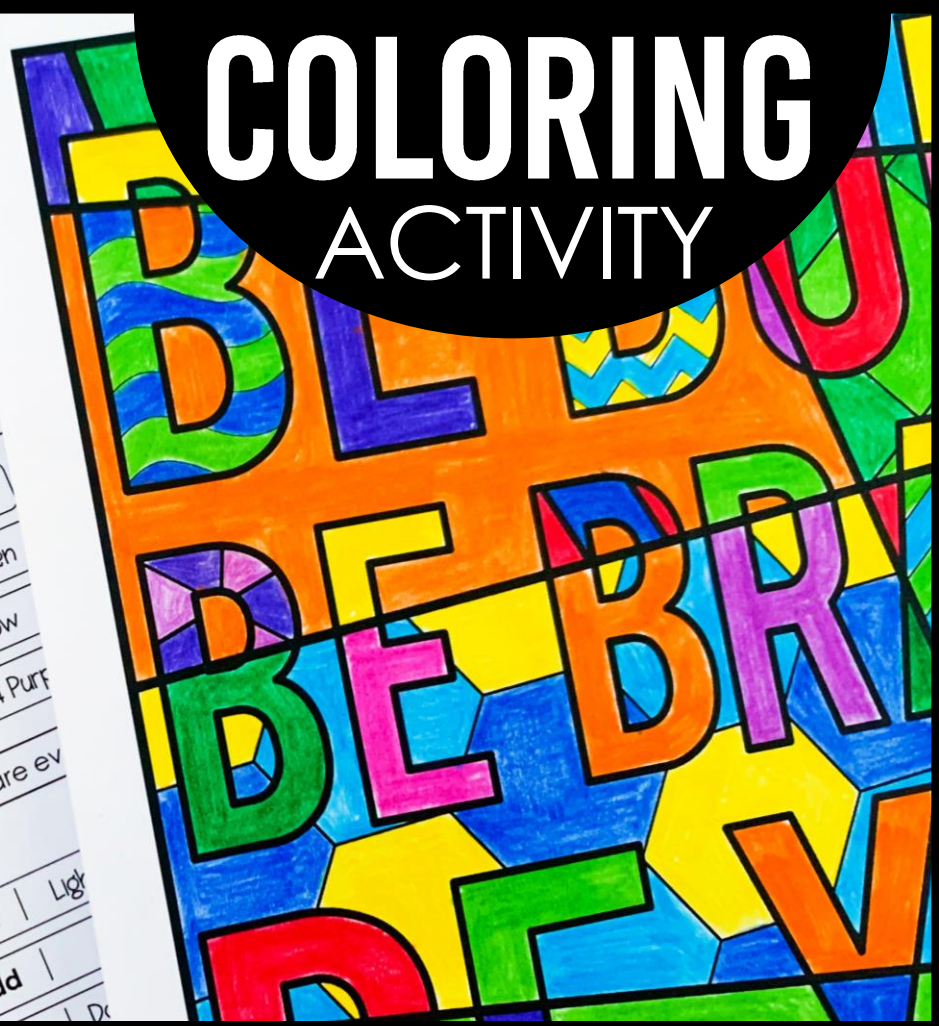
ALL | Light Purple

Directions: Determine if the functions are even or odd.

Even | Light Blue

Odd | Light Purple

$f(x) = x^3 - 8x$



Tests for Symmetry & EVEN/ODD FUNCTIONS

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Tests for Symmetry & EVEN VS. ODD FUNCTIONS

Coloring Activity

Objective: To determine if relations are symmetric to the x-axis, y-axis, origin (or all). Students will also identify functions that are even, odd, or neither.

Directions:

- 1) Copy the "Tests for Symmetry & Even vs. Odd Functions" page and coloring picture for each student. I typically copy the coloring sheet on the back to save paper.
- 2) Students identify the symmetry for each problem. I have my students show all work on a separate sheet of notebook paper to prove the symmetry. They check their answer for each problem, which identify a color for each question number.
- 3) After solving all the problems, students color the picture. The question numbers and selected answers reveal how to color the picture. For example, if "red" is checked for question #1, then all 1's on the picture are red.

I have them staple their work to the paper and turn in for a classwork grade.

The image displays two components of a classroom activity. On the left is a worksheet titled "Tests for Symmetry & EVEN VS. ODD FUNCTIONS". It includes a header for "Name:" and "Date:", followed by a set of directions: "Determine if the relations are symmetric to just the x-axis, just the y-axis, just the origin, or all. Then color the picture accordingly. (For example, if you check red for #1, then all 1's are red.)". The worksheet contains ten numbered problems, each with a function and a set of checkboxes for symmetry or even/odd status. Problems 1-4 focus on symmetry, while 5-10 focus on even/odd classification. On the right is a large coloring page featuring the text "BE BOLD BE BRAVE BE YOU" in a bold, outlined font. The page is overlaid with a grid of numbers (1-10) and symbols (x, y, origin, all) corresponding to the worksheet's questions, intended for students to color based on their answers.