

Learn with MoMA



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Step 1 Look closely

1. What do you notice about the shapes and forms in this work?
2. How are the shapes arranged?

Step 2 Learn more

Donald Judd created his progression sculptures between 1964 and 1970. Judd wanted to separate his art from expression and emotion. The works in this series are based on simple mathematical sequences, such as the Fibonacci sequence.

In this work, *Untitled*, which is part of the progression series, the blocks' size decrease by half from left to right, while the spaces in between the blocks increase by half. This way the negative spaces are as important as the positive spaces.

Step 3 Look again: Math connections

Elementary School:

1. Looking at the art work from left to right, what do you notice about the patterns?
2. What math operation would you use if your pattern went 6, 4, 2?
3. What math operation would you use in the pattern of 8, 4, 2, 1?

Middle School:

1. What is it called when a number pattern repeats itself?
2. What are the next three terms if the pattern is 1, 3, 9?

High School:

1. If you read the artwork right to left and use the number of units of each section, the first three terms of the sequence are 1, 2, 4; what would the seventh term of the sequence be?
2. Using the sequence from the previous problem (1, 2, 4 ...), would this sequence be an arithmetic or geometric sequence? Depending on your answer, what is the common difference or common ratio?

Step 3

Activity: Create a progression

Suggested materials: ruler, pencil, paper.
Optional: scissors, glue.

1. Create your own mathematical sequence (you can add, subtract, or multiply to create the sequence). (For example: 3, 5, 7, 9 ... or 3, 6, 12, 24 ...)
2. Using your ruler or other measuring tool, draw lines whose measurements match the numbers in the sequence.
 - a. Try arranging the lines vertically, horizontally, or on a diagonal.
 - b. Think about the spacing between your lines.
 - c. Experiment with different kinds of line thicknesses and styles.
 - d. Restart and repeat the sequence in different areas of the artwork.
3. Optional: Add color to your artwork.

Step 4

Share!

Share your progression with your classmates and see if they can identify the sequence. Or you can email us a photo of your progression to MoMA: schoolprograms@moma.org.



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Image: : Donald Judd. *Untitled*. 1979. Galvanized steel and anodized aluminum. The Riklis Collection of McCrory Corporation. © 2023 Judd Foundation / Artists Rights Society (ARS), New York