

Cantor Set

- Set of lines where there is one main line, and below that there are two other lines: each $\frac{1}{3}$ of the width of the original line, with one on the left and one on the right (with a $\frac{1}{3}$ separation of whitespace between them)
- Below each of the other lines is an identical situation: two $\frac{1}{3}$ lines.
- This repeats until the lines are no longer visible.



Order-0 Cantor Set

Order-1 Cantor Set



Order-2 Cantor Set



Order-3 Cantor Set



Order-6 Cantor Set



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Another Cantor Set!

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Approaching recursive problems

- Look for self-similarity.
- Try out an example.
 - Work through a simple example and then increase the complexity.
 - Think about what information needs to be “stored” at each step in the recursive case
- Ask yourself:
 - What is the base case? (What is the simplest case?)
 - What is the recursive case? (What pattern of self-similarity do you see?)