1.02 - PATTERNS & INSTRUCTIONS

Mr. Braddock

Objectives

- Follow instructions to create a construction
- Use precise mathematical language to describe a construction

Required materials: compass, straightedge

Warm Up

Explain why each statement is true.

- Length of $\overline{EA}$ is equal to the length of $\overline{EB}$
- ΔABF is equilateral
- $AB = \frac{1}{3}CD$
- $CB = DA$

(image)

DIY Patterns

From the given circle & radius, build a pattern using compass and straightedge moves. After each step, write down *precise* instructions (on a separate sheet of paper) so someone else can make a perfect copy.

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Swap instructions with a neighbor, but do not let them see your finished pattern!

DISCUSSION

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What would you change to make it easier?

Was there anything about the process that surprised you?

Summary

Compass and straightedge moves can be used to create interesting patterns. However, for the patterns to be recreated, precise instructions must be made. Labelling points and segments are helpful in creating clear directions.