What's the Whole?

Objective: Investigate fractional relationships.

Materials: Cuisenaire Rods
Activity Sheets
Centimeter grid paper

Procedures:

1. Now let's look at fractions from a different perspective. What if we had a fractional part, could we find a whole?

2. Name a rod to represent a unit fraction and find the rod that represents the whole. Take out a light green rod and name it as $\frac{1}{2}$. What is the whole? (Dark green because two light green rods have the same length as a dark green.)

3. If the red rod is $\frac{1}{4}$, what is the whole? (Brown because four red rods have the same length as the brown.)

4. If the white rod is $\frac{1}{4}$, what is the whole? (Purple because four white rods have the same length as the purple.)

5. Participants are able to count by unit fractions to obtain the whole. Be sure that you point out the importance of the denominator of the unit fraction and the fact that the size of the fraction depends entirely on the size of the whole.

6. After the initial instruction, have participants do additional practice by completing activity Problem Solving with Fractions Activity Sheet.

Extensions:

1. Use pattern blocks or some other manipulative to explore fractions.

Problem Solving With Fractions

1. If the purple rod is $\frac{1}{2}$, what color is one whole?

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2. If the red rod is $\frac{1}{3}$, what color is one whole?

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3. If the white rod is $\frac{1}{6}$, what color is one whole?

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4. If the white rod is $\frac{1}{10}$, what color is one whole?

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5. If the red rod is $\frac{1}{2}$, what color is one whole?

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Challenge:

6. If the dark-green rod is $\frac{2}{3}$, what color is one whole?

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1. If the light-green rod is $\frac{1}{2}$, what color is one whole?

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2. If the white rod is $\frac{1}{3}$, what color is one whole?

_____

3. If the red rod is $\frac{1}{4}$, what color is one whole?

_____

4. If the white rod is $\frac{1}{5}$, what color is one whole?

_____

5. If the red rod is $\frac{1}{5}$, what color is one whole?

_____

Challenge:

6. If the purple rod is $\frac{4}{9}$, what color is one whole?

_____

1. If the white rod is $\frac{1}{4}$, what color is one whole?

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2. If the white rod is $\frac{1}{7}$, what color is one whole?

_____

3. If the purple rod is $\frac{1}{2}$, what color is one whole?

_____

4. If the white rod is $\frac{1}{2}$, what color is one whole?

_____

5. If the light green rod is $\frac{1}{3}$, what color is one whole?

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Challenge:

6. If the light green rod is $\frac{3}{8}$, what color is one whole?

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