Overview
Students continue to explore equivalence with pictures and fraction circles.

Materials
• Transparencies 1& 2
• Student Pages A, B, C
• Fraction Circles for students

Teaching Actions
1. Show transparency 1 to the class.

2. Ask students to name section a; section b; section c. [Also ask what color fraction-circle piece matches each part]. Have them explain their reasoning.

3. Ask students if fractional parts can have more than one name. Ask students to name section a in two different ways. Record on the transparency what they say with words and/or symbols:

Ex: 1 yellow = 1/2; [1 blue =1/4]
1 yellow = 2 blues: 1/2=2/4

Comments
1. Seeing equivalence from pictures is not the same as seeing it with manipulatives. Some children are better at adding and taking out lines drawn in a diagram. Don’t be surprised to see differences in how children respond to these pictures.
Teaching Actions

3. Point to the section (c + d + e). Ask: How are b and (c + d + e) alike? [cover same amount]

4. As a group write sentences using colors and symbols that describe equivalences in the picture.

   Ex: 1 blue = 3 reds; 1/4 = 3/12
   1 blue and 3 reds = 1 yellow; 1/4+3/12
   =1/2
   6 reds = 1 yellow; 6/12 = 1/2

5. Show transparency 2 to the class and talk through the naming of each part: a, b, c, (b + c),
d, (d + e), (d + e+ f + g) in several ways. Record symbolic sentences.

   Ex: a = 1/6; b = 2/6; (b+c) = 1/2;
c = (d+e); 2/6 = 4/12

6. Repeat for the second rectangle at the bottom of the page.

7. Assign in pairs Student Pages A, B, C. For problems 1, 2 and 3, children refer to their fraction circles; for the last 3 problems, children rely on diagrams. They may need to draw on the pictures. Encourage them to do so.

Comments

2. Note: Problem 1 is already completed; this was the same as the problem on Transparency 1.
Directions:

For each of the drawings write the color corresponding to the part marked a, b, c, and so on. Then write a sentence that is true about all of the color-coded parts altogether. Use your color-coded circular parts to help you, if you need them.

**Color** | **Fractions in Words**
---|---
a. yellow | \(\frac{1}{2}\)
b. blue | \(\frac{1}{4}\)
c. red | \(\frac{1}{12}\)
d. red | \(\frac{1}{12}\)
e. red | \(\frac{1}{12}\)

**Sentences I can write about the parts:**

a) 1 yellow and 1 blue and 3 reds equal 1 whole circle.  
   \(\frac{1}{2}\) and \(\frac{1}{4}\) and \(\frac{3}{12}\) = 1 whole.

b) 1 blue and 3 reds equal 1 yellow. \(\frac{1}{4}\) and \(\frac{3}{12}\) = 12.

c) 3 reds equal 1 blue. \(\frac{3}{12}\) = \(\frac{1}{4}\).

d) 6 reds equal 1 yellow. \(\frac{6}{12}\) = \(\frac{1}{2}\).
3. Color Fractional Part of Whole Circle

<table>
<thead>
<tr>
<th>Color</th>
<th>Fractional Part of Whole Circle</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td></td>
</tr>
<tr>
<td>b.</td>
<td></td>
</tr>
<tr>
<td>c.</td>
<td></td>
</tr>
<tr>
<td>d.</td>
<td></td>
</tr>
<tr>
<td>e.</td>
<td></td>
</tr>
</tbody>
</table>

Sentences I can write about the parts:

4. Fractional Part of Rectangle

<table>
<thead>
<tr>
<th>Fractional Part of Rectangle</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
</tr>
<tr>
<td>b.</td>
</tr>
<tr>
<td>c.</td>
</tr>
<tr>
<td>d.</td>
</tr>
</tbody>
</table>

Sentences I can write about the parts:
5. Fractional Part of Rectangle

a. _______________________

b. _______________________

c. _______________________

d. _______________________

Sentences I can write about the parts:

6. Fractional Part of Rectangle

a. _______________________

b. _______________________

c. _______________________

d. _______________________

e. _______________________

Sentences I can write about the parts:
Sentences I can write about the parts:
Sentences I can write about the parts: