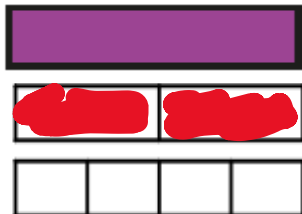


## Exploring $\frac{1}{2}$ and $\frac{2}{4}$ equivalence using Cuisenaire rods

### REHEARSE

Use Cuisenaire rods to find halves and quarters of these different wholes. Record what you know using colours and/or words.

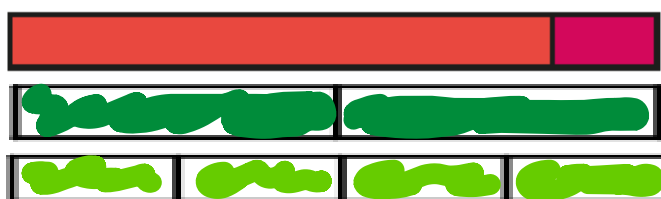


1 whole purple rod.

1 whole divided into 2 equal parts.  
Each red rod is  $\frac{1}{2}$  of the whole.

1 whole divided into 4 equal parts.  
Each white rod is  $\frac{1}{4}$  of the whole.

1 out of 2 red rods is equal to 2 out of 4 white rods. This shows  $\frac{1}{2} = \frac{2}{4}$



1 whole orange and red rod.

1 whole divided into 2 equal parts.  
Each dark green rod is  $\frac{1}{2}$  of the whole.

1 whole divided into 4 equal parts.  
Each light green rod is  $\frac{1}{4}$  of the whole.

1 out of 2 dark green rods is equal to 2 out of 4 light green rods. This shows  $\frac{1}{2} = \frac{2}{4}$

### RETRIEVE

#### Can I still rebalance calculations?

Use rebalancing to make these calculations easier. One has been done for you.

$$4 + 9 = 3 + 10 \text{ so this is } 13$$

$$2 + 39 = 1 + 40 \text{ so this is } 41$$

$$8 + 79 = 7 + 80 \text{ so this is } 87$$

$$4 + 59 = 3 + 60 \text{ so this is } 63$$



1 whole orange and dark green rod.

1 whole divided into 2 equal parts.  
Each brown rod is  $\frac{1}{2}$  of the whole.

1 whole divided into 4 equal parts.  
Each purple rod is  $\frac{1}{4}$  of the whole.

1 out of 2 brown rods is equal to 2 out of 4 purple rods. This shows  $\frac{1}{2} = \frac{2}{4}$

### APPLY AND EXPLORE

Build a whole using 2 orange rods. Can you still find halves and quarters?



1 whole divided into 2 equal parts is an orange.  $\frac{1}{2}$  of the whole is orange. 1 whole divided into 4 equal parts is yellow.  $\frac{1}{4}$  of the whole is yellow. 1 out of 2 orange is equal to 2 out of 4 yellow.