

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

WORKED EXAMPLE

Fractions are equivalent when they are the same size but with a different number of equal parts.



1 whole brown rod.

1 whole divided into 2 equal purple parts.

Each purple rod is $\frac{1}{2}$ of the whole.

1 whole divided into 4 equal red parts.

Each red rod is $\frac{1}{4}$ of the whole.

$$\frac{1}{2} = \frac{2}{4}$$

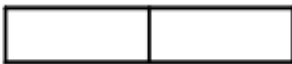
1 out of 2 purple rods is equal to 2 out of 4 red rods.

REHEARSE

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

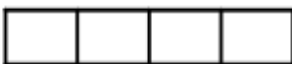


1 whole purple rod.



1 whole divided into 2 equal parts.

Each _____ rod is $\frac{1}{2}$ of the whole.



1 whole divided into 4 equal parts.

Each _____ rod is $\frac{1}{4}$ of the whole.

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



1 whole orange and red rod.



1 whole divided into 2 equal parts.

Each _____ rod is $\frac{1}{2}$ of the whole.



1 whole divided into 4 equal parts.

Each _____ rod is $\frac{1}{4}$ of the whole.

1 out of 2 _____ rods is equal to 2 out of 4 _____ 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.

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

$2 + 39 = \underline{\quad} + \underline{\quad} \text{ so this is } \underline{\quad}$

$8 + 79 = \underline{\quad} + \underline{\quad} \text{ so this is } \underline{\quad}$

$4 + 59 = \underline{\quad} + \underline{\quad} \text{ so this is } \underline{\quad}$

REHEARSE

Use Cuisenaire rods to find halves and quarters of these different wholes.

Record what you know using colours and/or words.

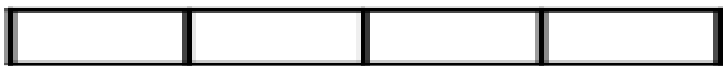


1 whole orange and dark green rod.



1 whole divided into 2 equal parts.

Each $\frac{1}{2}$ rod is $\frac{1}{2}$ of the whole.



1 whole divided into 4 equal parts.

Each $\frac{1}{4}$ rod is $\frac{1}{4}$ of the whole.

1 out of 2 $\frac{1}{2}$ rods is equal to 2 out of 4 $\frac{1}{4}$ 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?

Record what you know and talk about it using the word bank.



whole

divided

equal parts

half $\frac{1}{2}$ quarter $\frac{1}{4}$

out of