

CAMBRIDGE

√Mathematics

Fraction Exploration

‘Knowing a half’ and ‘Seeing the whole’

with Frances Watson and Tabitha Gould

What's the difference?

Half

$$\frac{1}{2}$$

3:30 (half past 3)

A half of _____

$$\frac{1}{2}, 1, 1\frac{1}{2}, 2, 2\frac{1}{2} \dots$$

Halve

$$\div 2$$

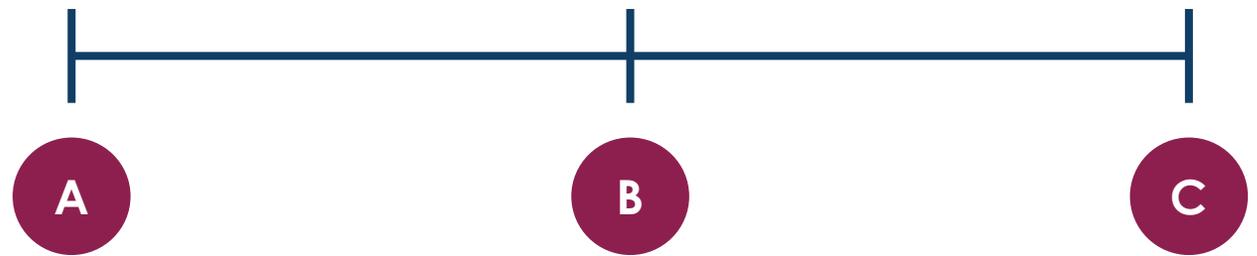
Share/divide by two

Opposite of doubling

Doubling and halving

1. Draw a number line like this
2. Label two of the points with a number
3. Ask your partner to work out the missing number and explain how they know
4. Swap over roles and repeat steps 1–4

Extn. Make at least one of your two initial points include $\frac{1}{2}$



Halving = finding a half



A glass of water



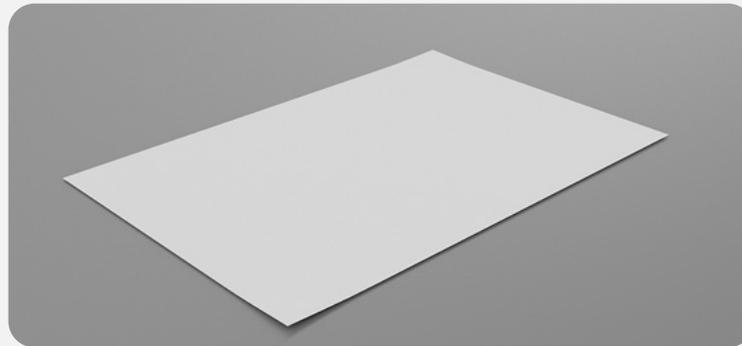
A bag of counters



A piece of rope



A ball of dough



A piece of paper

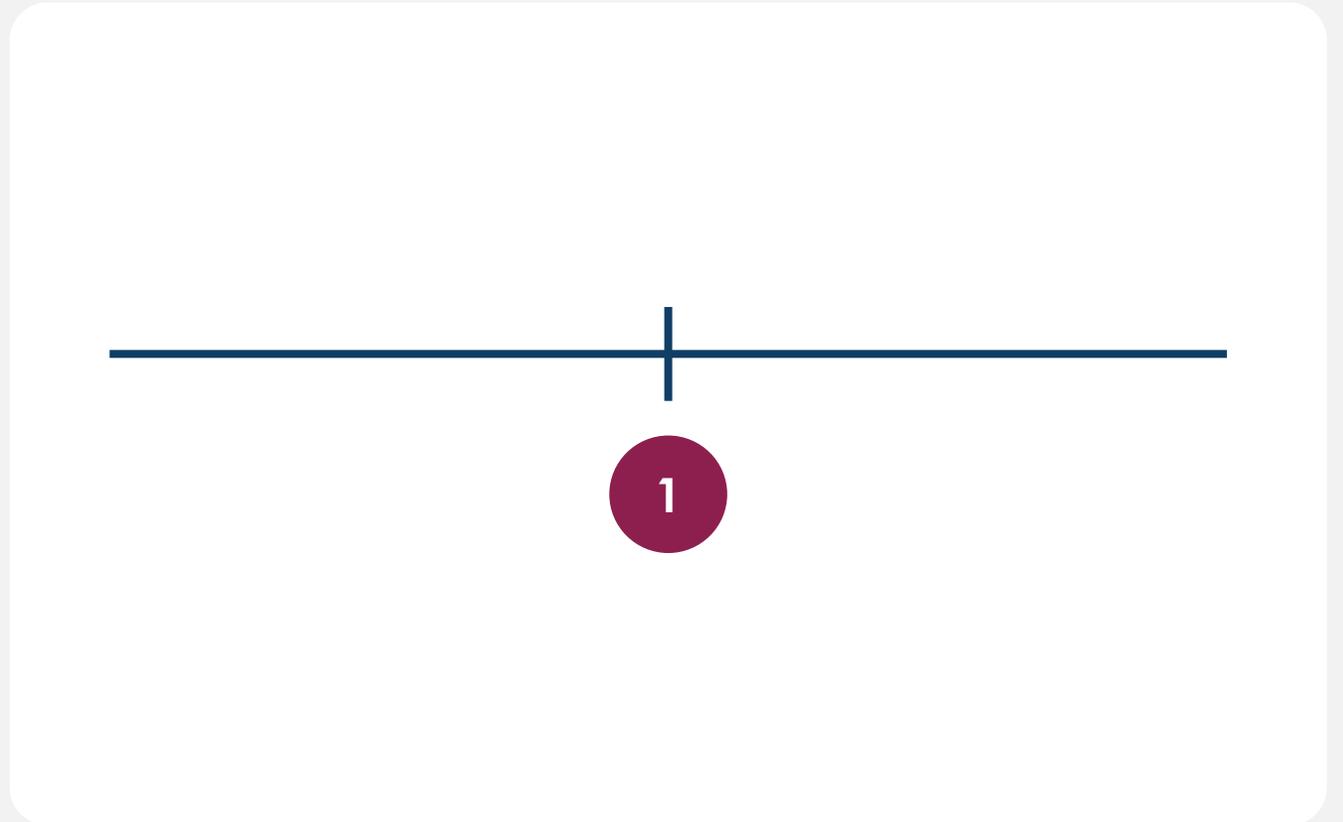


A bowl of rice

More or less than 1?

1. Draw a number line
2. Roll a die twice
3. Create a fraction from the numbers
4. Decide and discuss where to place your fraction and why
5. Repeat steps 1–5

Extn. Try using a 0–9 die instead of a 1–6

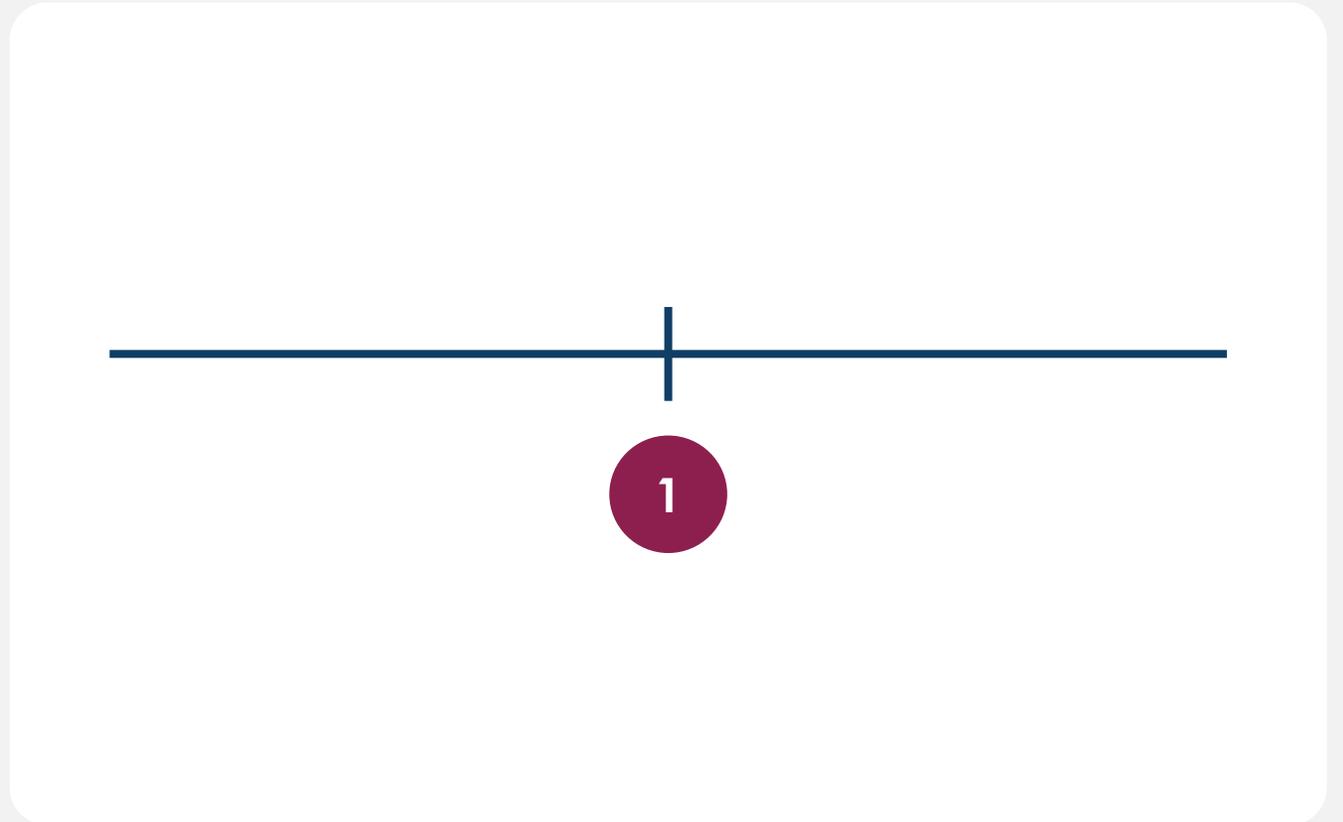


NRICH dice
interactivity

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Whereabouts (and in between)?

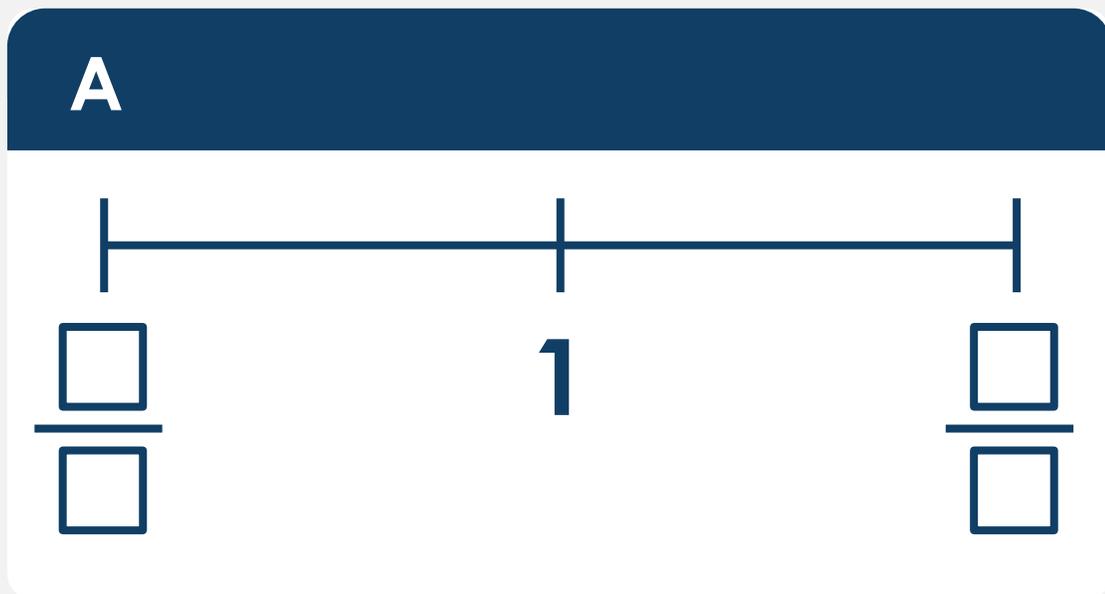
1. Draw a number line
2. Roll a die twice
3. Create two fractions from the numbers
4. Decide and discuss where to place your fractions and why
5. Think about the position of each fraction and the distance between them
6. Repeat steps 1–6



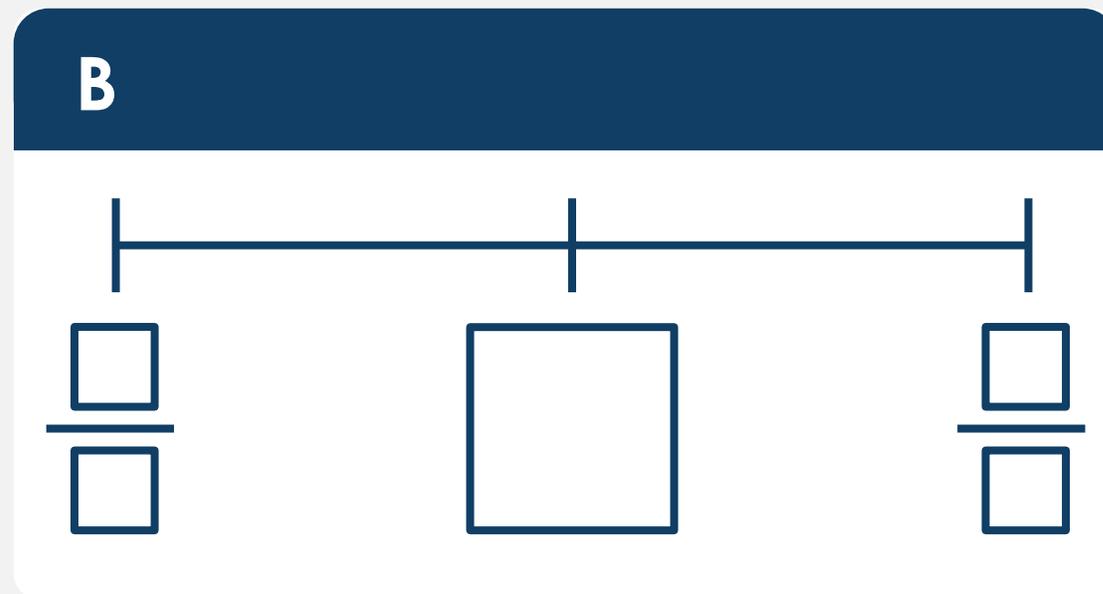
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The sum is greater (or less) than the whole



A. Take it in turns to roll a die and put the number in a box to make fractions that are greater or less than 1.



B. Take it turns to roll a die and put the number in one of the boxes (the middle box is a whole number).



NRICH dice
interactivity

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