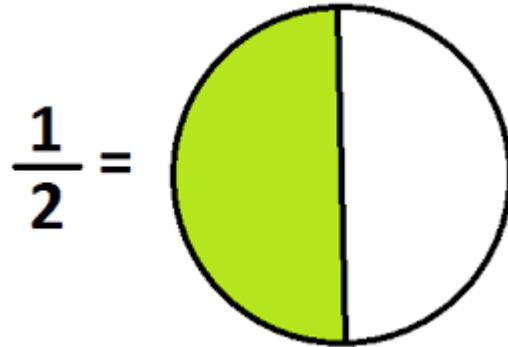


# Fractions



What are the objectives for different year groups?



## Foundation Stage

- ▶ Solve problems, including doubling, halving and sharing

## Year One

- ▶ Recognise, find and name a **half** as 1 of 2 equal parts of an **object, shape or quantity**
- ▶ Recognise, find and name a **quarter** as 1 of 4 equal parts of an **object, shape or quantity**

## Year Two

- ▶ Recognise, find, name and **write** fractions  $\frac{1}{3}$ ,  $\frac{1}{4}$ ,  $\frac{2}{4}$  and  $\frac{3}{4}$  of a **length, shape, set of objects or quantity**
- ▶ **Write simple fractions**, for example  $\frac{1}{2}$  of  $6 = 3$  and recognise the equivalence of  $\frac{2}{4}$  and  $\frac{1}{2}$

## In summary...

**Finding half of a quantity, by sharing**  
Numbers to 20

EYFS

One half and one quarter of:

- quantities (to 20)
- shapes/objects (e.g. a rectangle/a pizza)

Find them and recognise them (e.g. Can you shade half of this rectangle? Which of these rectangles has a quarter shaded?)

Year One

$\frac{1}{2}$   $\frac{1}{4}$   $\frac{3}{4}$  of quantities (to 100) shape, objects and lengths

Writing fractions themselves (e.g.  $\frac{1}{2}$  of 6 = 3)

Knowing that  $\frac{2}{4}$  and  $\frac{1}{2}$  are the same

Year Two

# EYFS



- Using ‘real life’ objects that relate to a **scenario**, for example, ‘These two teddies have 10 stickers to share. Can you give half of the stickers to this teddy, and half to the other teddy?’



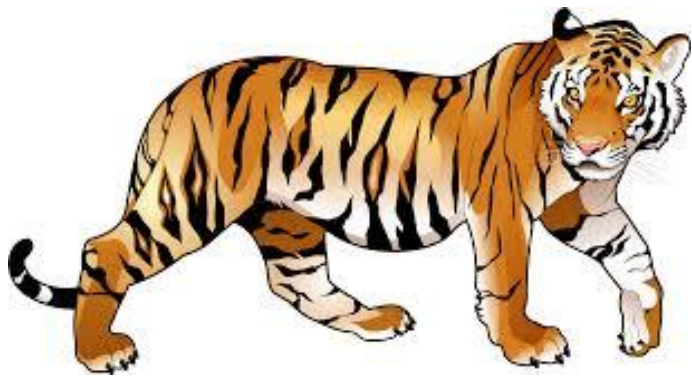
- ‘One for you, one for you...’
- Children need to count carefully and make sure that they keep the groups separate
- They need to develop an understanding that the **whole** amount is being **shared** into **two equal groups**.



Can you use the cubes to work out  
half of 10? How do you know that this  
is half?

Children do not need to recognise  $\frac{1}{2}$  written as a fraction. Questions would usually be asked orally by the adult the child is working with.

# Year One





# Finding half or quarter of a quantity

- ▶ This could be part of a word problem, for example 'I have a bunch of 12 grapes and I eat a quarter of them. How many grapes do I have?'

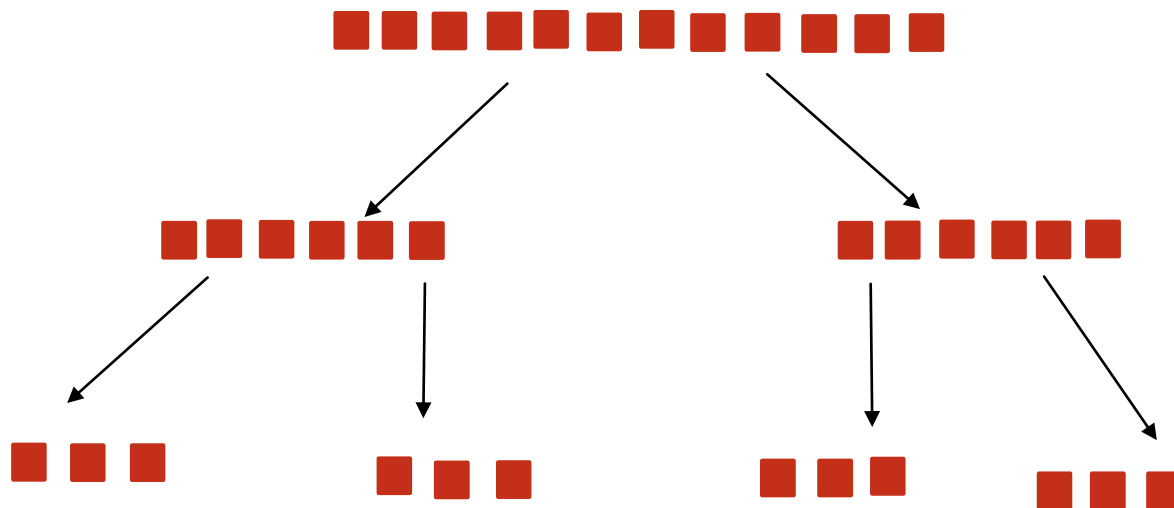


- ▶ Again, children may use 'real life' props, or move on to realising that counters can represent the objects in a word problem.
- ▶ They may also solve calculations e.g. 'One quarter of 12 = \_\_'
- ▶ **Recognising half/quarter** - e.g. 'I have 12 grapes and I have eaten 5 of them. This means that I have eaten  $\frac{1}{4}$  of my grapes. Do you agree?'

- ▶ We encourage children to make links that will help them to develop fluency and understanding. For example:
- linking halving to repeated addition (knowing that half of ten must be 5, because if you add two groups of 5, this equals 10)

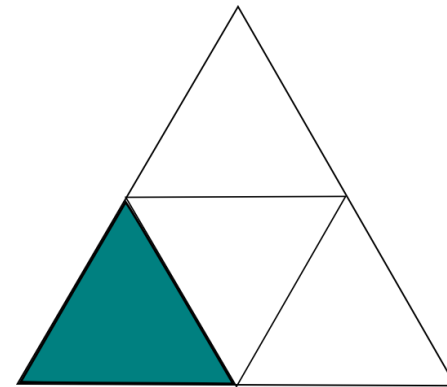


- knowing that to work out a quarter, you can halve and halve again



# Halving and quartering shapes

- ▶ Again children need to be clear that the **whole** shape is being split into 2 or 4 **equal groups**.
- ▶ To build understanding children might fold a shape to divide it, and then cut it into halves/quarters and overlay them to see that the sections are equal.



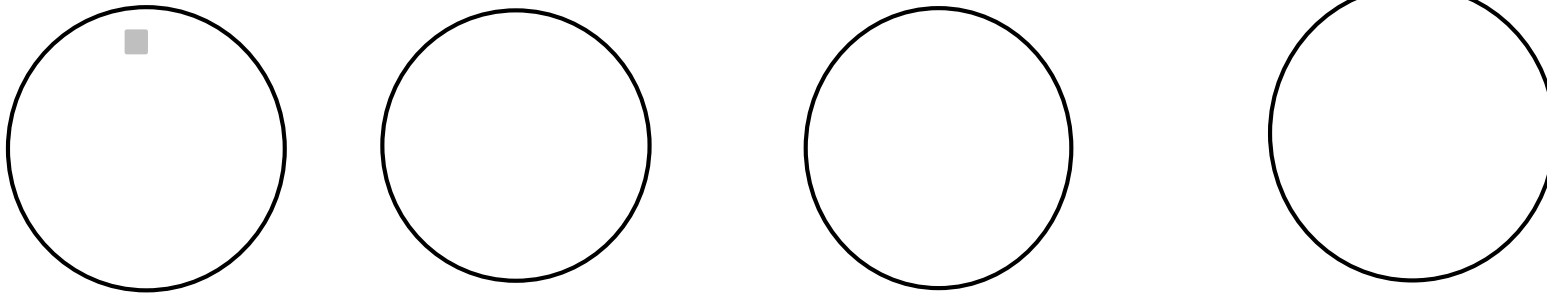
*What fraction of the shape is shaded?*

# Year Two



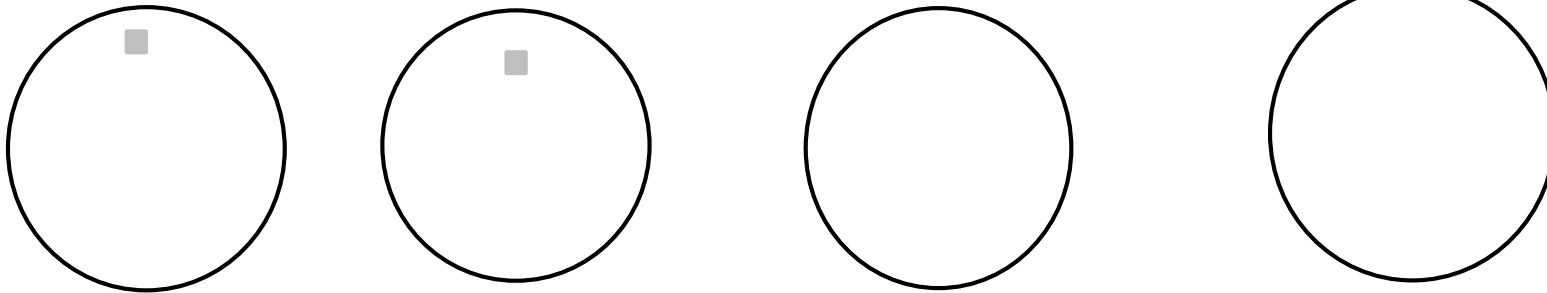
- ▶ Children move on to non-unit fractions ( $\frac{2}{4}$  and  $\frac{3}{4}$ ) and they need to be able to **write** and **recognise** written fractions.
- ▶ The core principles and strategies from previous years remain the same. There is still a big focus on the use of equipment (e.g. counters, Numicon, cutting out shapes or using mirrors to find lines of symmetry).
- ▶ Children may start to draw their own images to help them to find fractions of bigger numbers.

E.g.  $\frac{3}{4}$  of 20



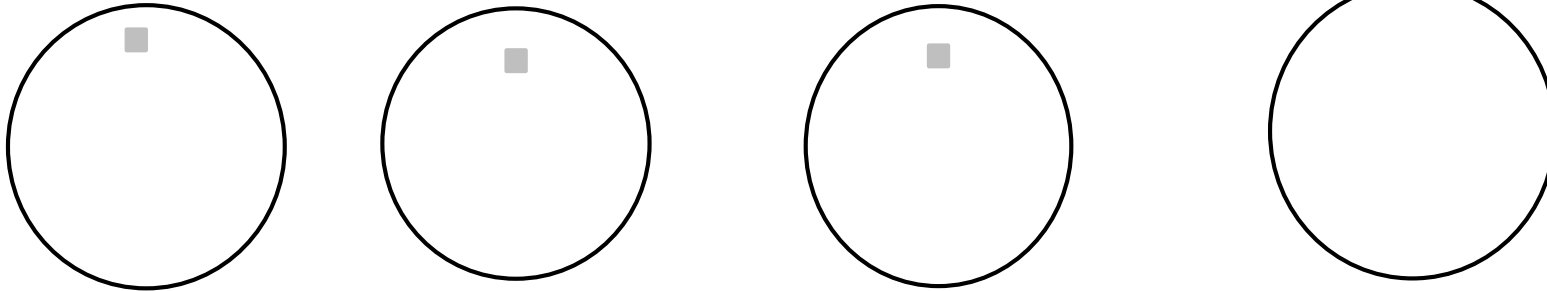
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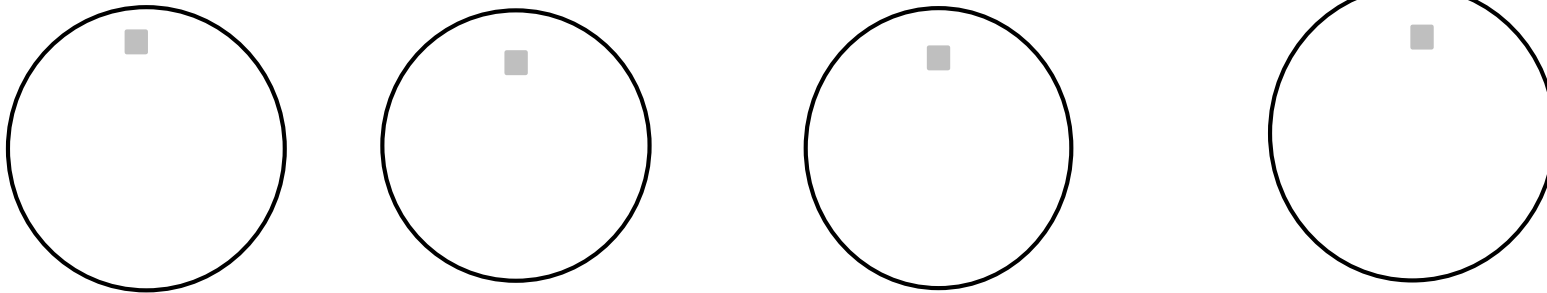
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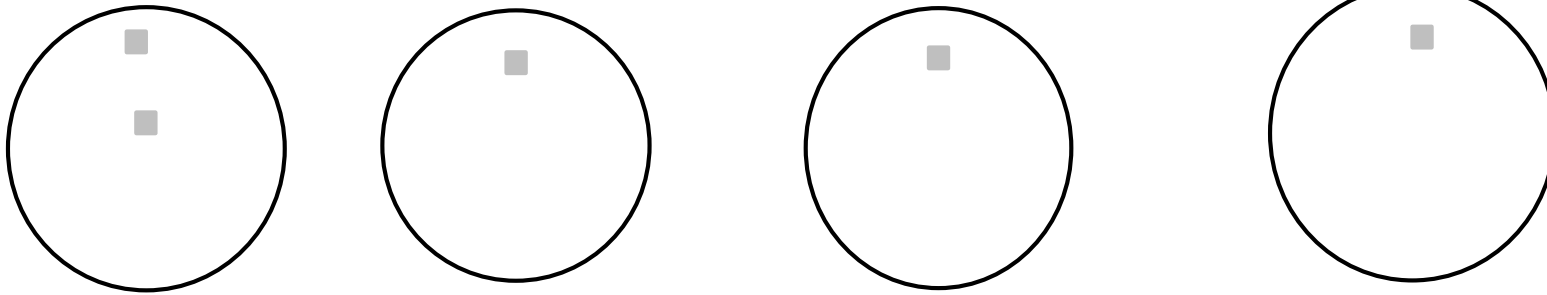
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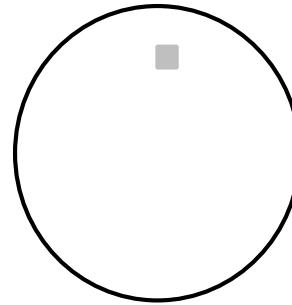
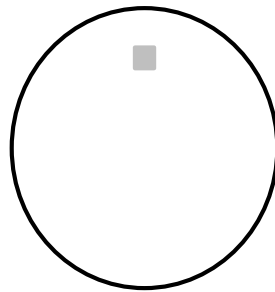
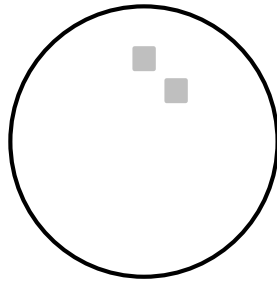
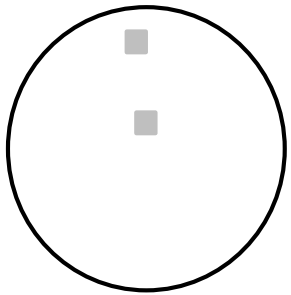
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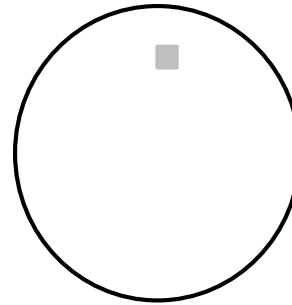
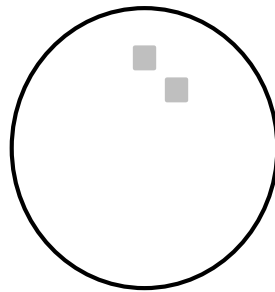
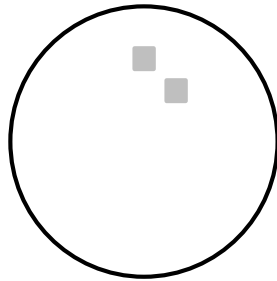
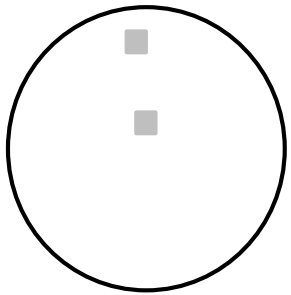
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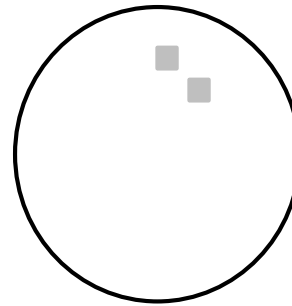
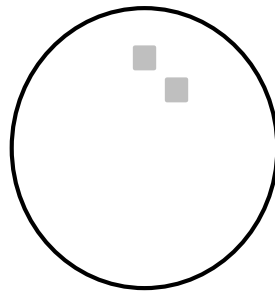
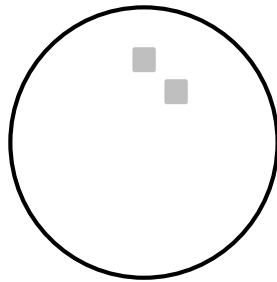
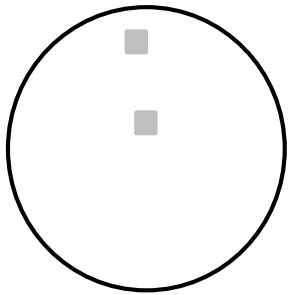
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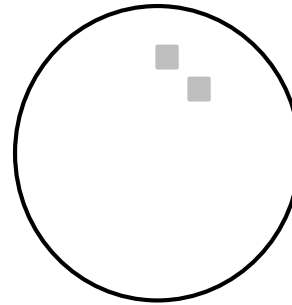
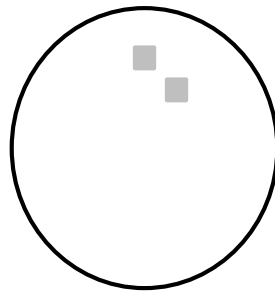
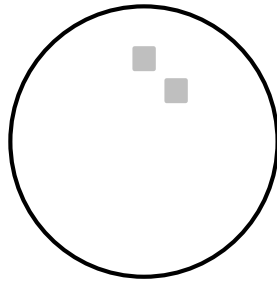
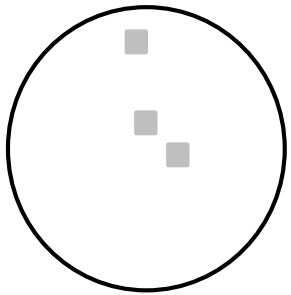
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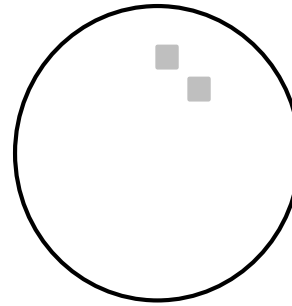
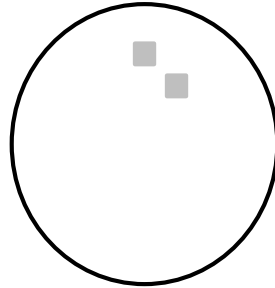
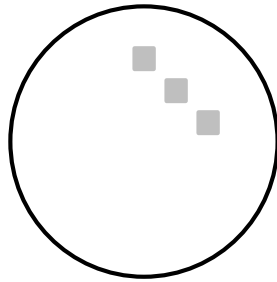
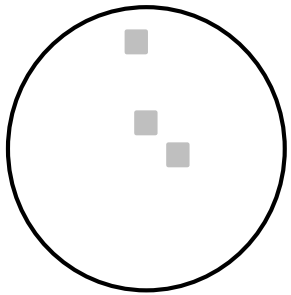
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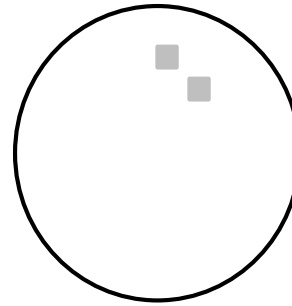
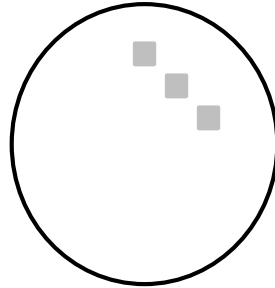
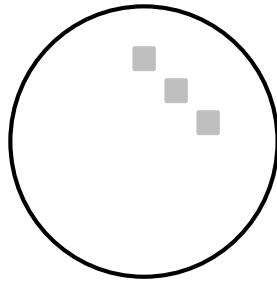
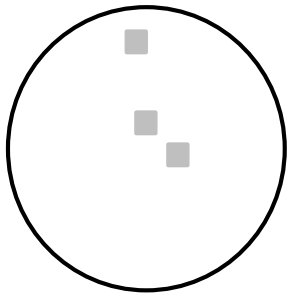
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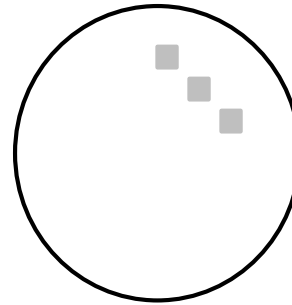
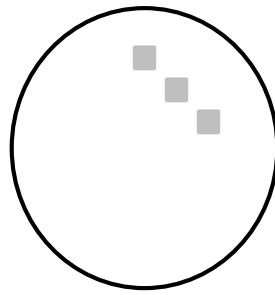
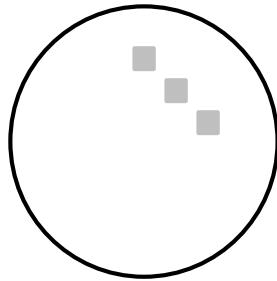
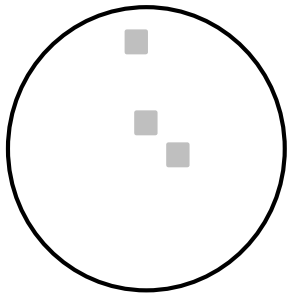
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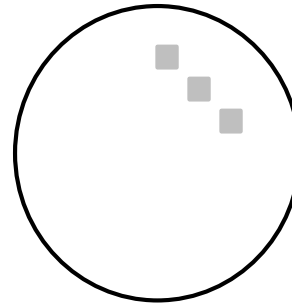
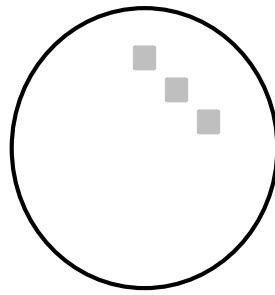
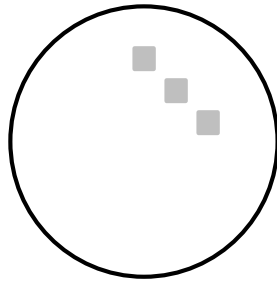
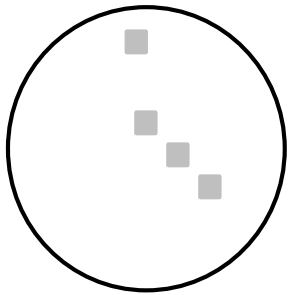
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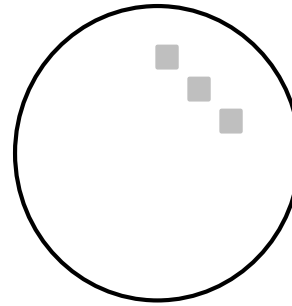
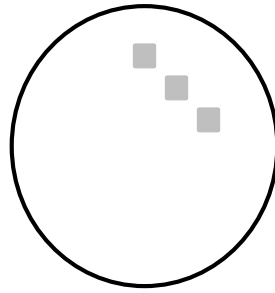
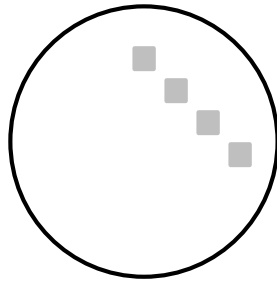
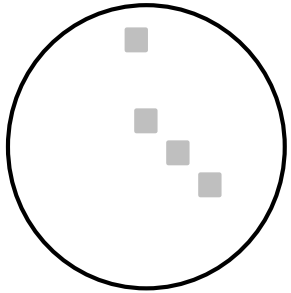
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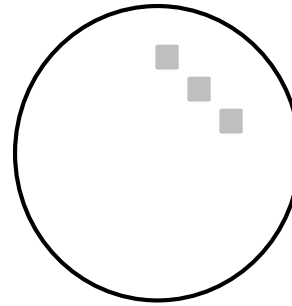
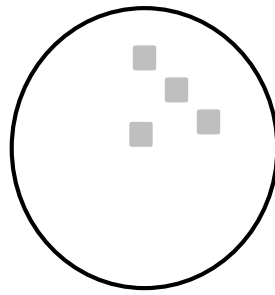
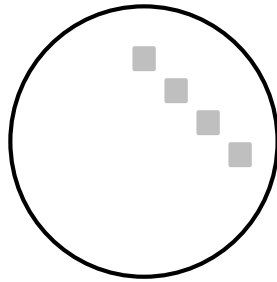
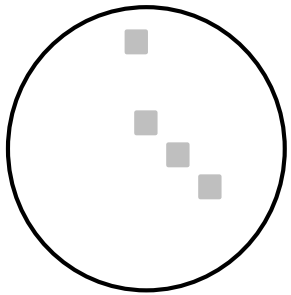
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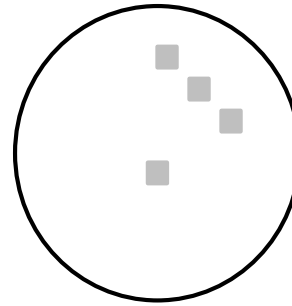
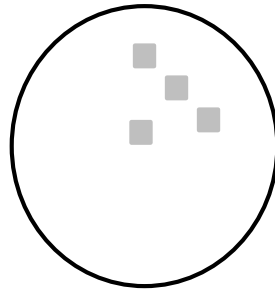
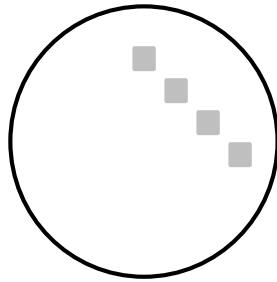
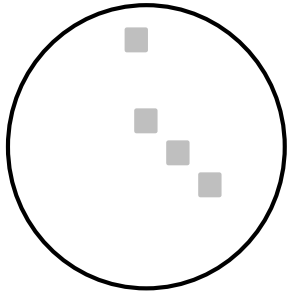
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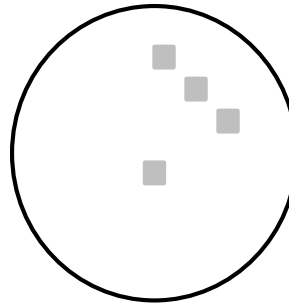
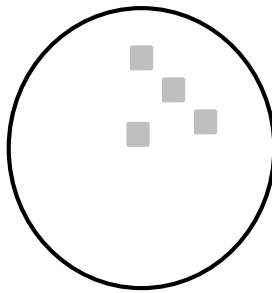
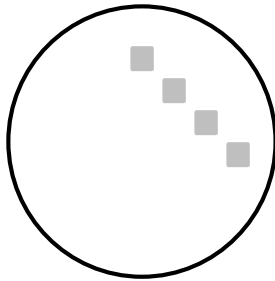
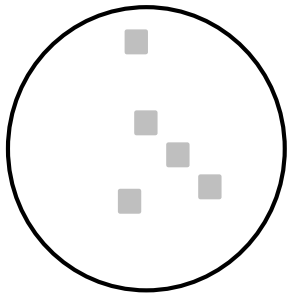
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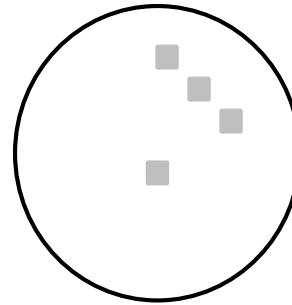
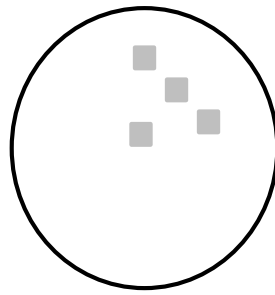
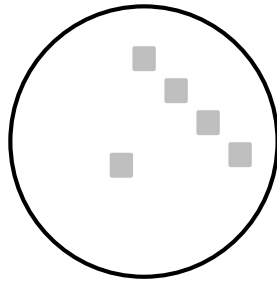
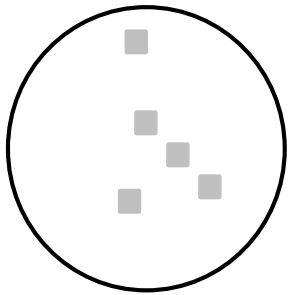
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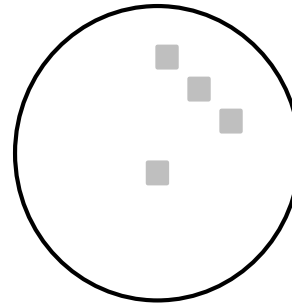
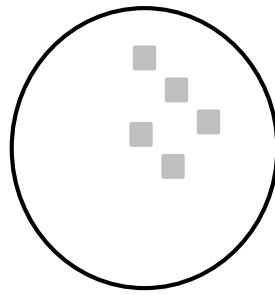
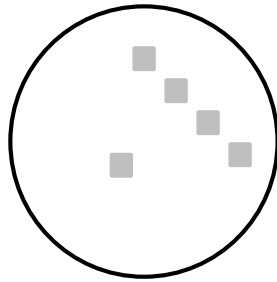
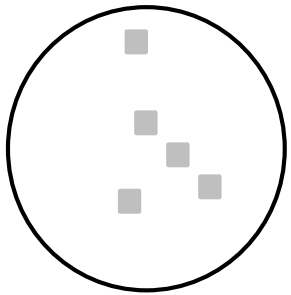
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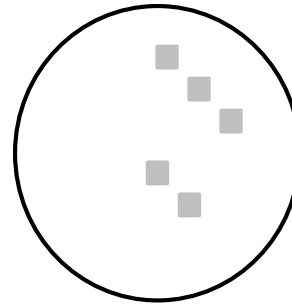
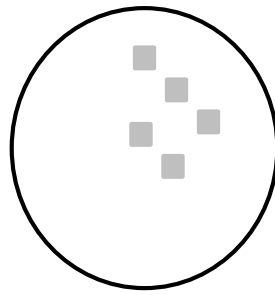
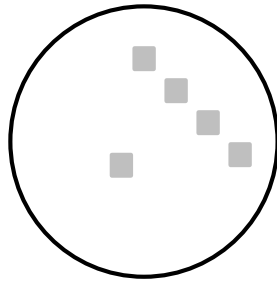
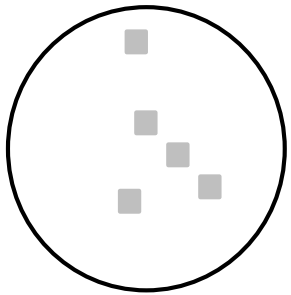
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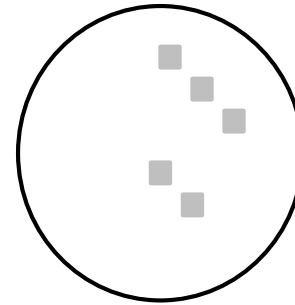
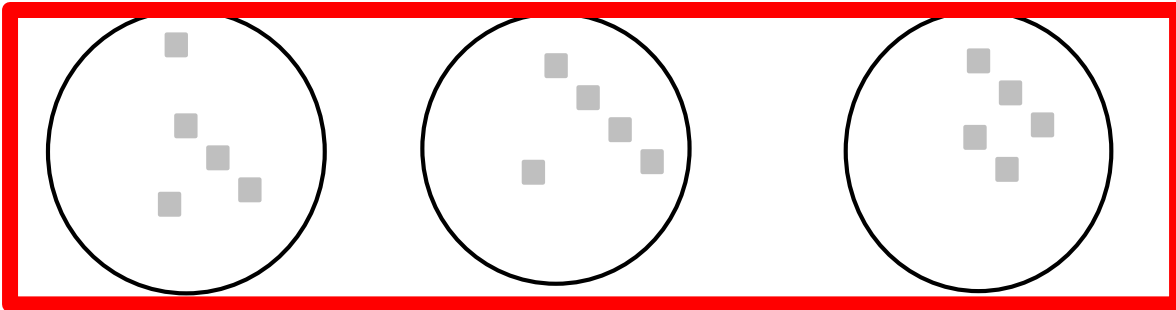
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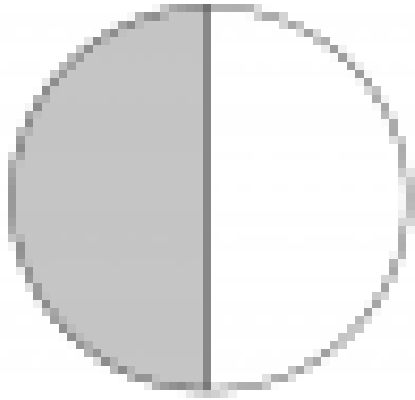
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E.g.  $\frac{3}{4}$  of 20



They use knowledge of tens and ones to help them to halve higher numbers

$$\begin{array}{c} 1/2 \text{ of } 84 \\ \swarrow \quad \searrow \\ 40 \quad + \quad 2 = 42 \end{array}$$



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