Fractions of a set of objects (3)
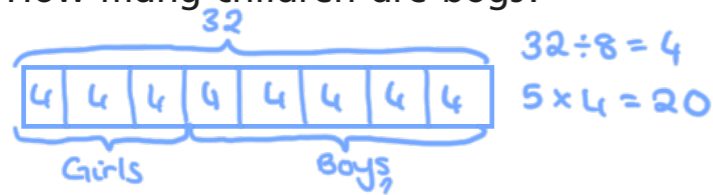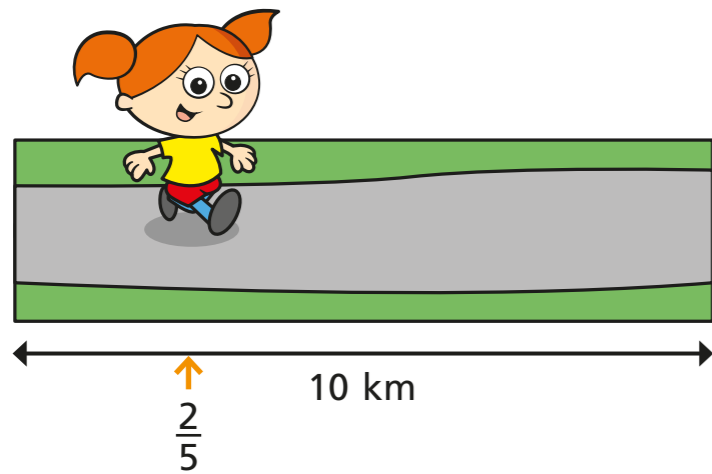
1 In a class of 32 children, three eighths are girls.

How many children are boys?
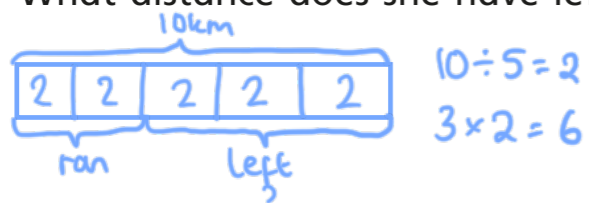
20

$$32 \div 8 = 4$$
$$5 \times 4 = 20$$

32 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4
Girls — Boys?

2 Alex is taking part in a 10 km race.

10 km

$\frac{2}{5}$

She has run two fifths of the race.

What distance does she have left to run? 6 km

10km | 2 | 2 | 2 | 2 | 2
ran — left?

$$10 \div 5 = 2$$
$$3 \times 2 = 6$$

3 Filip has £3 and 20p.

£3 and 20p

£1 | 50p | 10p | £1 | 50p | 10p
spends — left?
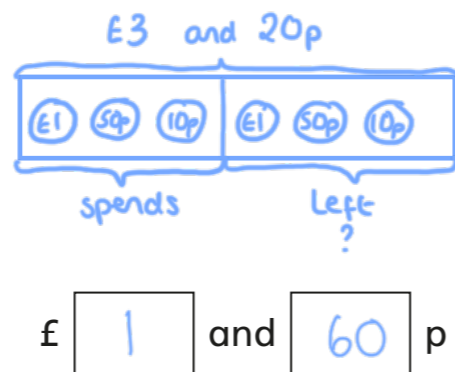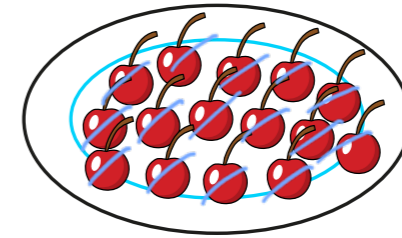
He spends half of his money.

How much does he have left?   £ 1 and 60 p
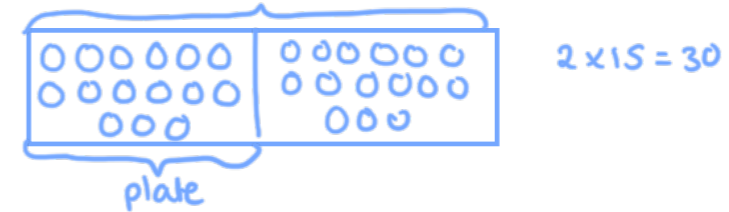
4 Teddy opens a bag of cherries and puts $\frac{1}{2}$ on a plate.

How many cherries were there in the whole bag?

plate

$$2 \times 15 = 30$$

30

5 Ron has £4 and 50p.

He decides to share the money equally between himself and his two sisters.

How much money will each child get?

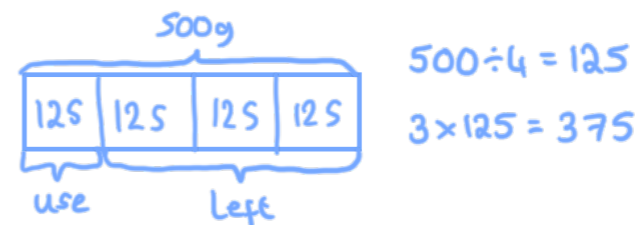£1 | 50p | £1 | 50p | £1 | 50p
Ron? — sisters

£ 1 and 50 p

6 A bag of potatoes weighs 500 g.

500 g Potatoes

Annie's dad uses one quarter of the potatoes to make a shepherd's pie.

What is the mass of the potatoes left in the bag?

500g
125 | 125 | 125 | 125
use — left

$$500 \div 4 = 125$$
$$3 \times 125 = 375$$

375 g

7 Dexter spends one third of his money.

He has these coins left.

spends ?

left
£1 and 70p

How much did Dexter spend?

£ | 0 | and | 85 | p

8 Eva has a bag of 20 sweets.

She eats $\frac{1}{4}$ of the sweets.

20
5 5 5 5   20÷4=5   3x5=15
eats   left

3 3 3 3 3   15÷5=3   4x3=12
Dora   Left

She gives $\frac{1}{5}$ of the sweets that are left to Dora and 2 sweets to her mum.

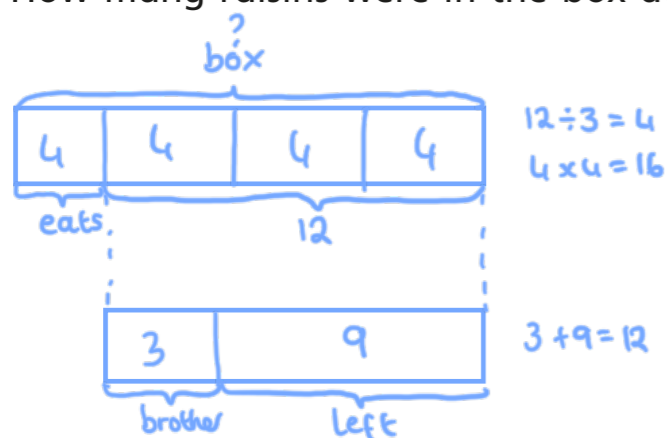How many sweets does Eva have left?   12-2 = 10 | 10 |

9 Whitney has a box of raisins.

She eats $\frac{1}{4}$ of the raisins and gives 3 to her brother.
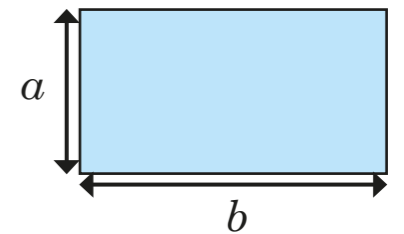
She has 9 raisins left.

How many raisins were in the box at the start? | 16 |

?
box
4 4 4 4   12÷3=4
eats   4x4=16
12

3 9   3+9=12
brother   Left

10 Here is a rectangle.

The perimeter of the rectangle is less than 30 cm.

Side a is one half of the length of side b.

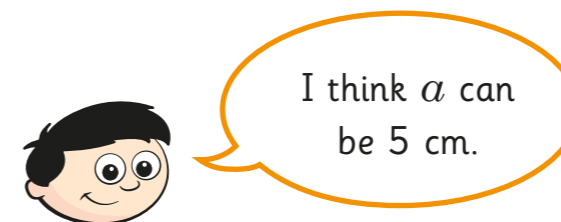**a)** Complete the table to show the different possible lengths of side a and side b.

Length of side a	Length of side b	Perimeter
1 cm	2 cm	6 cm
2 cm	4 cm	12 cm
3 cm	6 cm	18 cm
4 cm	8 cm	24 cm

b) What are the longest possible lengths of side a and b?

side a ___4 cm___

side b ___8 cm___

c)

I think a can be 5 cm.

Talk to a partner about why Dexter is wrong.