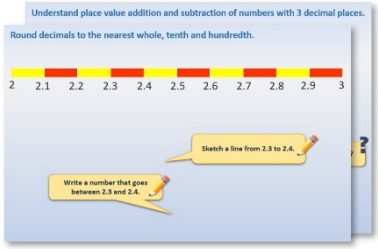
Year 5: Week 2, Day 5

Find non-unit fractions of amounts

Each day covers one maths topic. It should take you about 1 hour or just a little more.

1. Start by reading through the **Learning Reminders**.
   They come from our *PowerPoint* slides.



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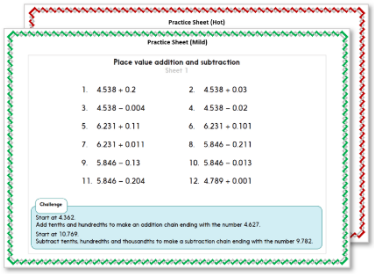
2. Tackle the questions on the **Practice Sheet**.
   There might be a choice of either Mild (easier) or Hot (harder)!
   Check the answers.



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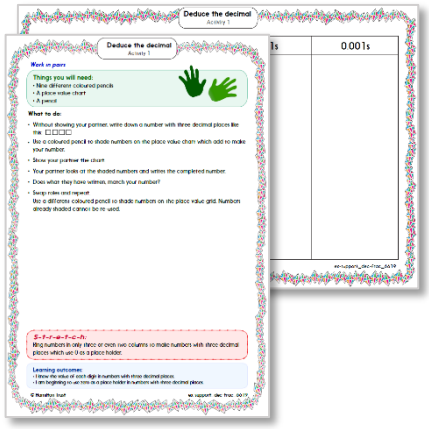
3. Finding it tricky? That's OK… have a go with a grown-up at **A Bit Stuck?**



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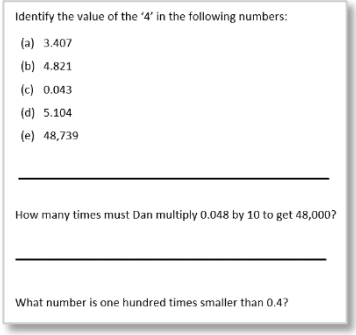
4. Have I mastered the topic? A few questions to **Check your understanding**.
   Fold the page to hide the answers!



Learning Reminders

Use mental division and multiplication strategies to find fractions of amounts.

What other fractions of 150 can we find which give whole-number answers?

HINT! Finding factors of 150 is helpful...

$\frac{1}{2}$ of 150 = _____

$\frac{1}{3}$ of 150 =

$\frac{1}{5}$ of 150 =

$\frac{1}{10}$ of 150 =

$\frac{1}{30}$ of 150 =

$\frac{1}{50}$ of 150 =

Learning Reminders

Use mental division and multiplication strategies to find fractions of amounts.

$\frac{1}{6}$ of 150

Divide 150 by 6 to find the answer...

$\frac{1}{6}$ of 150 =

$$6 \overline{)15^{3}0} \quad 25$$

So, how could we calculate $\frac{5}{6}$ of 150?

We could multiply 25 by 5, or subtract 25 from 150.
Do both to check that you get the same answer...

150					
25	25	25	25	25	25

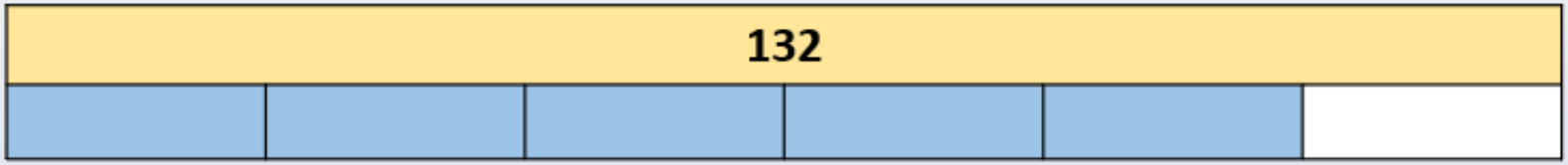
$\frac{5}{6}$ of 150 = 125

Learning Reminders

Find non-unit fractions of amounts.

$^{5}/_{6}$ of 132

Write several sentences to describe a process to calculate this, *then* read the box below.



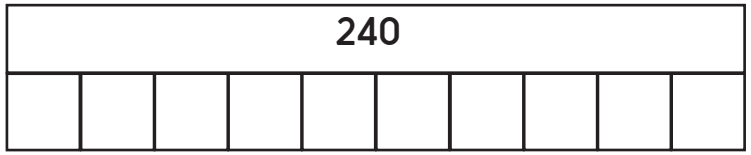
To find a non-unit fraction of an amount we:

- Look at the denominator of the fraction and divide the whole amount into this number of *parts*. This gives the amount of the unit fraction.
  In our example, $^{1}/_{6}$ of 132 = 132 ÷ 6 = 22
- Multiply by the numerator – the number of parts – to give the non-unit fraction of the amount.
  In our example, 22 × 5 = 110
- Check that the answer seems reasonable.

Practice Sheet Mild

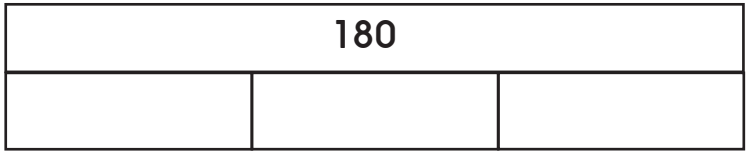
Finding fractions of amounts

1. $\frac{1}{10}$ of 240



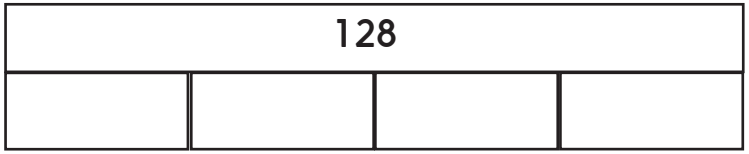
$\frac{3}{10}$ of 240

2. $\frac{1}{3}$ of 180



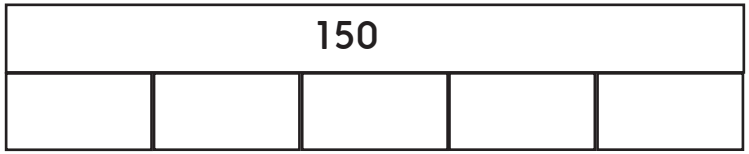
$\frac{2}{3}$ of 180

3. $\frac{1}{4}$ of 128



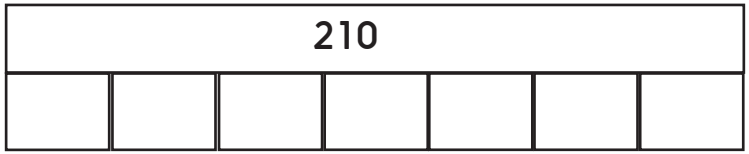
$\frac{3}{4}$ of 128

4. $\frac{1}{5}$ of 150



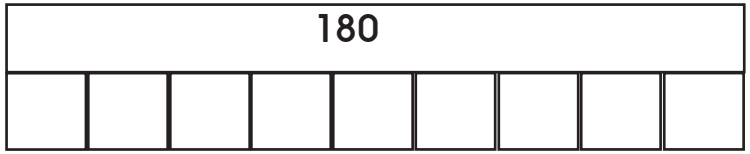
$\frac{4}{5}$ of 150

5. $\frac{1}{7}$ of 210



$\frac{3}{7}$ of 210

6. $\frac{1}{9}$ of 180



$\frac{4}{9}$ of 180

Practice Sheet Mild

Solving word problems

1. There are 210 children in a school. There are 7 classes with the same number of children in each class. How many are in each class?

2. School dinners cost £2.25 per child per day. How much does it cost a child for one week of dinners?

3. Out of 148 children having school dinners, $\frac{1}{2}$ chose pasta, $\frac{1}{4}$ chose jacket potatoes and the rest chose curry. How many children chose curry?

4. The area of each classroom is 42m^2. What is the total area of all 7 classrooms?

5. Of the 120 children in KS2, $\frac{3}{4}$ have got their 25m swimming badge. How many have yet to swim far enough to earn their badge?

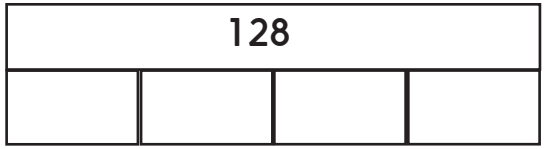
6. Children are in school $6\frac{1}{4}$ hours each day. How many hours are they in school during one week of five days?

7. A sponsored spell has raised £280 for wet play games. This will be split evenly between the 7 classes. How much will each class get to spend?

Practice Sheet Hot

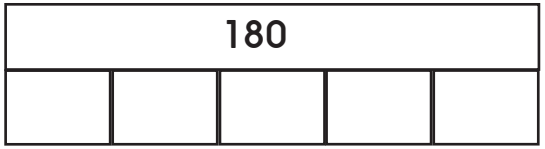
Finding fractions of amounts

1.



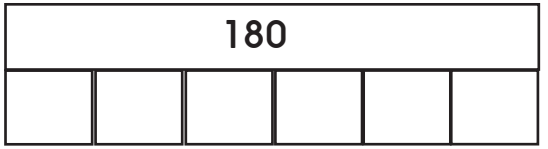
$\frac{3}{4}$ of 128

2.



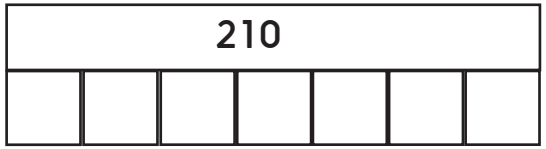
$\frac{2}{5}$ of 180

3.



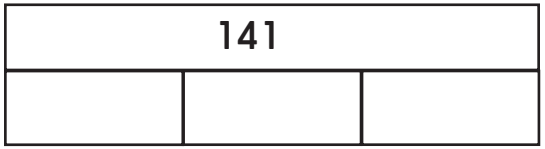
$\frac{5}{6}$ of 180

4.



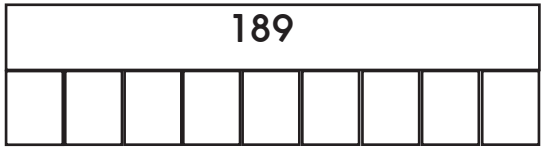
$\frac{6}{7}$ of 210

5.



$\frac{2}{3}$ of 141

6.



$\frac{7}{9}$ of 189

7. $\frac{5}{6}$ of 192

8. $\frac{3}{8}$ of 192

9. $\frac{5}{7}$ of 224

10. $\frac{5}{8}$ of 100

Practice Sheet Hot

Solving word problems

1. There are 208 children in a school. 28 are in reception, the rest are split equally between 6 classes. How many are in each class?

2. School dinners cost £2.25 per child per day. How much does it cost a child for 190 days' dinners?

3. Out of 144 children who have school dinners, $\frac{1}{3}$ chose pasta, $\frac{1}{4}$ chose jacket potatoes and the rest chose curry. How many chose curry?

4. The area of each of the 7 classrooms is 42m^2. The hall has an area of 70m^2, and the offices and reception area is 18m^2. If the whole area of the school is 400m^2, what is the area of the corridor?

5. Of the 120 children in KS2, $\frac{1}{5}$ have not got a swimming badge yet, half of the rest have got their 25m badge, and the remaining children have their 25m badge and 50m badge. How many children have just one badge so far?

6. Children are in school $6\frac{1}{4}$ hours a day. How many hours are they in school in a term of 60 days?

7. A sponsored spell has raised £343 for wet play games. This will be split evenly between the 7 classes. How much will each class get to spend?