Year 5 Maths

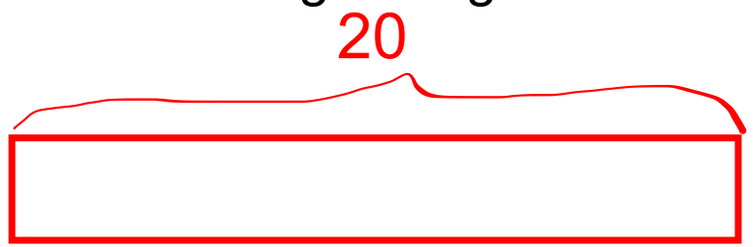
Week beginning 13th July

L.O.: I can calculate fractions of amounts.

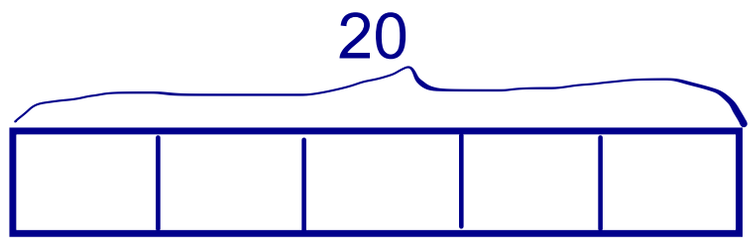
Finding fractions of amounts - let's use bar modelling to begin with to help us visualise the process.

Find 3/5 of 20

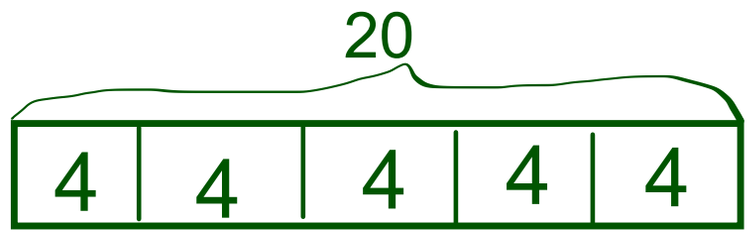
Step 1: The 'whole' is 20. Draw a bar model and label it with 20.



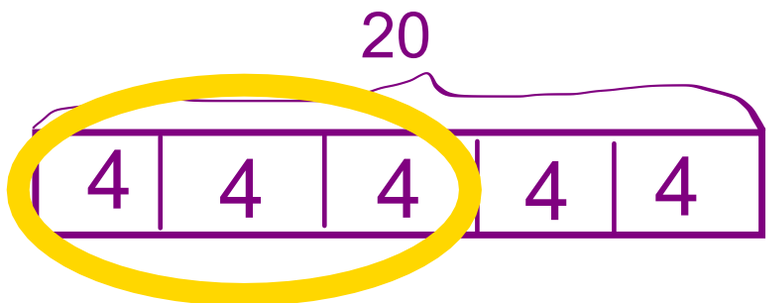
Step 2: Look at the denominator; it is 5. The whole needs dividing in to 5 equal parts.



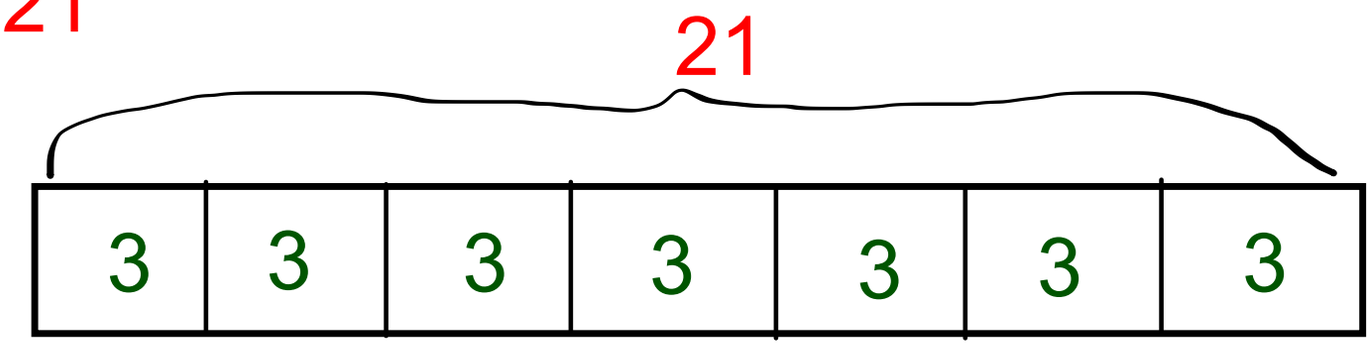
Step 3: Divide the whole number (20) by the denominator (5).
20 ÷ 5 = 4. Each part is worth 4.



Step 4. Look at the numerator; it is 3. We need to find the total of 3 of those parts. Each part is worth 4, so
3 lots 4 (3 x 4) = 12.
3/5 of 20 = 12.



5/7 of 21



21(whole) ÷ 7(denominator) = 3

Each part = 3

3 (value of each part) x 5 (the numerator) = 15

5/7 of 21 = 15.

Once you understand the concept, a quick way of calculating fractions of amounts is:

Divide the whole number by the denominator and multiply the answer by the numerator.

2/5 of 30

30 ÷ 5 = 6.

6 x 2 = 12.

2/5 of 30 = 12.

6/9 of 45

45 ÷ 9 = 5.

5 x 6 = 30.

6/9 of 45 = 30.

There is further explanation and a video on this webpage:
https://www.bbc.co.uk/bitesize/articles/zdrbcqt

Now have a go at these. The answers are on the next page so you can check your answers.

1. 2/5 of 40
2. 3/4 of 24
3. 5/6 of 18
4. 2/7 of 21
5. 3/5 of 35
6. 4/7 of 70
7. 3/7 of 63
8. 7/8 of 64
9. 2/3 of 138
10. 3/5 of 175
11. 4/5 of 235
12. 5/6 of 144

You need to use short division to find the value of one part, and short multiplication to multiply by the numerator. We practiced last week!

Answers.

1. 2/5 of 40 = 16
2. 3/4 of 24 = 18
3. 5/6 of 18 = 15
4. 2/7 of 21 = 6
5. 3/5 of 35 = 21
6. 4/7 of 70 = 40
7. 3/7 of 63 = 27
8. 7/8 of 64 = 56
9. 2/3 of 138 = 92
10. 3/5 of 175 = 105
11. 4/5 of 235 = 188
12. 5/6 of 144 = 120

Got this? Try the word problems on 'Year 5 Maths Challenge 13th July'