

Summer term week 4 w/b 11th May 2020

(NB continual work to practise multiplication tables and learning to tell the time)

BBC Bitesize also have some good revision lessons to look at (these include lessons for English and the Stone Age).

All these strategies can be found on Brookside you tube channel.

https://www.youtube.com/channel/UC-JJXZ7S29swCgB1WUVPR_A

There are 2 types of division which children need to understand: **sharing** and **grouping**. They both give the same answer but have different methods (grouping links very closely to multiplication and sharing links to fractions).

This week we will focus on grouping.

Multiplication and repeated addition

1. Multiplication: $5 \times 4 = 20$

Sentence: 5 groups of 4 is the same as 20;

Repeated addition: $4 + 4 + 4 + 4 + 4$.

Complete the multiplication; sentence and repeated addition below.

Now have a go at these:

1)

Multiplication: $3 \times 5 =$

Sentence:

Repeated addition:

2)

Multiplication: $4 \times 10 =$

Sentence:

Repeated addition:

3)

Multiplication:

Sentence: 2 groups of 5 is the same as

Repeated addition:

4)

Multiplication:

Sentence:

Repeated addition: $3 + 3 + 3 + 3 =$

5)

Multiplication:

Sentence:

Repeated addition: $5 + 5 + 5 =$

1)

Multiplication: $4 \times 8 =$

Sentence:

Repeated addition:

2)

Multiplication:

Sentence: 3 groups of 9 is the same as

Repeated addition:

3)

Multiplication:

Sentence:

Repeated addition: $7 + 7 + 7 + 7 =$

4)

Multiplication: $6 \times 6 =$

Sentence:

Repeated addition:

5)

Multiplication:

Sentence:

Repeated addition: $4 + 4 + 4 + 4 + 4 =$

Understanding the inverse

1. $5 \times 4 = 20$; $4 \times 5 = 20$; $20 \div 5 = 4$; $20 \div 4 = 5$

What do you notice about the numbers in each calculation?

They are all the same just in a different order.

Now have a go at these: (write the 3 missing calculations)

1) $3 \times 5 = 15$

2) $4 \times 3 = 12$

3) $5 \times 6 = 30$

4) $8 \times 2 = 16$

5) $20 \div 2 = 10$

1) $6 \times 8 = 48$

2) $7 \times 4 = \underline{\quad}$

3) $30 \div 5 = 6$

4) $24 \div 2 = \underline{\quad}$

5) $9 \times \underline{\quad} = 27$

Known facts

If you know $6 \div 2 = 3$

Then you can work out $60 \div 2 = 30$

and $600 \div 2 = 300$.

Can you see what is happening?

To work out:

$900 \div 3$ use $9 \div 3 = 3$; $90 \div 3 = 30$ so

$900 \div 3 = 300$.

If you know $40 \div 5 = 8$

Then you can work out $400 \div 5 = 80$

To work out:

$600 \div 5$ use $60 \div 5 = 12$ so

$600 \div 5 = 120$

Now have a go at these:

1) $60 \div 3 =$

2) $80 \div 4 =$

3) $90 \div 3 =$

4) $20 \div 2 =$

5) $600 \div 3 =$

1) $200 \div 4 =$

2) $300 \div 5 =$

3) $600 \div 6 =$

4) $300 \div 6 =$

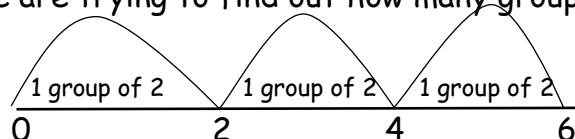
5) $800 \div 4 =$

Grouping: There are 2 Brookside TV videos to show grouping.

To understand grouping we need to use multiplication!

Example 1:

$6 \div 2$ we are trying to find out how many groups of 2 are in 6.



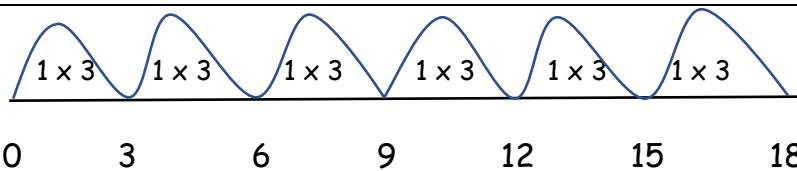
so there are 3 groups of 2
in $6 : 6 \div 2 = 3$

Another way we write 1 group of 2 is 1×2 (see first activity above)

Example 2:

$18 \div 3$ - how many groups of 3 are in 18?

$1 \times 3 = 1$ group of 3

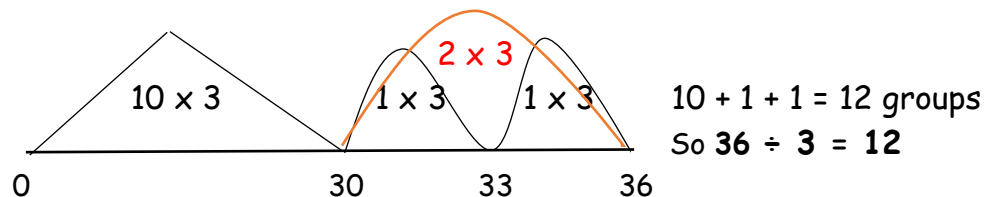


How many groups of 3 in 18? There are 6 groups so $18 \div 3 = 6$.

Example 3:

$36 \div 3$ - how many groups of 3 in 36?

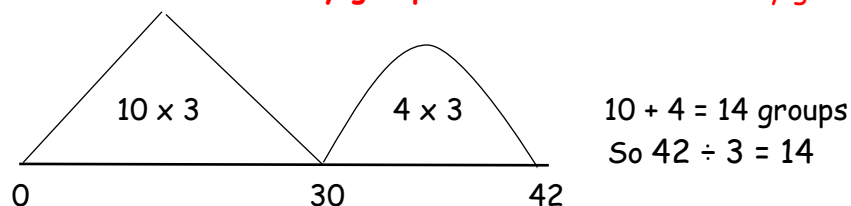
To be more efficient we can do bigger jumps:



Example 4:

$42 \div 3$ - how many groups of 3 in 42?

(children will be tempted to do the first jump of $10 \times 4 = 40$ BUT it needs to be 10×3 because we want to know **how many groups of 3** in 42 not how many groups of 4)



Now have a go at these: (use number lines!)

1) $12 \div 4 =$

2) $15 \div 5 =$

3) $21 \div 3 =$

4) $22 \div 2 =$

5) $28 \div 4 =$

1) $24 \div 4 =$

2) $39 \div 3 =$

3) $45 \div 3 =$

4) $72 \div 6 =$

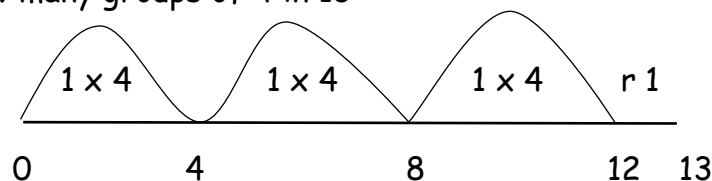
5) $84 \div 4 =$

Extra Challenge:

Remainders:

Example 1:

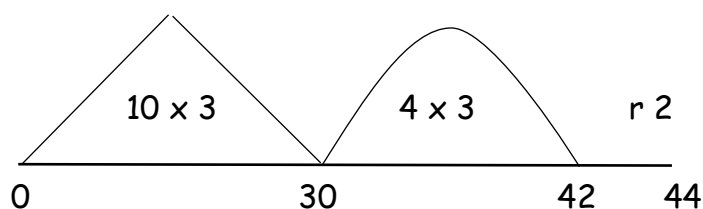
$13 \div 4$ - how many groups of 4 in 13



3 groups of 4
with 1 left over
so $13 \div 4 = 4r1$
(4 remainder 1)

Example 2:

$44 \div 3$ - how many groups of 3 in 44



$$44 \div 3 = 14r2$$

(14 groups of 3 with a remainder of 2)

Now try these:

1) $13 \div 2 =$

2) $16 \div 5 =$

3) $17 \div 4 =$

4) $22 \div 5 =$

5) $23 \div 3 =$

1) $24 \div 5 =$

2) $37 \div 3 =$

3) $53 \div 5 =$

4) $62 \div 4 =$

5) $75 \div 6 =$

Answers:

Multiplication and repeated addition:

1)

Multiplication: $3 \times 5 = 15$

Sentence: 3 groups of 5 is the same as 15.

Repeated addition: $5 + 5 + 5 = 15$

2)

Multiplication: $4 \times 10 = 40$

Sentence: 4 groups of 10 is the same as 40.

Repeated addition: $10 + 10 + 10 + 10$

3)

Multiplication: $2 \times 5 = 10$

Sentence: 2 groups of 5 is the same as

Repeated addition: $5 + 5 = 10$

4)

Multiplication: $4 \times 3 = 12$

Sentence: 4 groups of 3 is the same as 12.

Repeated addition: $3 + 3 + 3 + 3 = 12$

5)

Multiplication: $3 \times 5 = 15$

Sentence: 3 groups of 5 is the same as 15.

Repeated addition: $5 + 5 + 5 = 15$

1)

Multiplication: $4 \times 8 = 32$

Sentence: 4 groups of 8 is the same as 32.

Repeated addition: $8 + 8 + 8 + 8 = 32$

2)

Multiplication: $3 \times 9 = 27$

Sentence: 3 groups of 9 is the same as

Repeated addition: $9 + 9 + 9 = 27$

3)

Multiplication: $4 \times 7 = 28$

Sentence: 4 groups of 7 is the same as 28.

Repeated addition: $7 + 7 + 7 + 7 = 28$

4)

Multiplication: $6 \times 6 = 36$

Sentence: 6 groups of 6 is the same as 36.

Repeated addition: $6 + 6 + 6 + 6 + 6 + 6$

5)

Multiplication: $5 \times 4 = 20$

Sentence: 5 groups of 4 is the same as 20.

Repeated addition: $4 + 4 + 4 + 4 + 4 = 20$

Understanding the inverse:

1) $3 \times 5 = 15$ $5 \times 3 = 15$ $15 \div 3 = 5$ $15 \div 5 = 3$	1) $6 \times 8 = 48$ $8 \times 6 = 48$ $48 \div 6 = 8$ $48 \div 8 = 6$
2) $4 \times 3 = 12$ $3 \times 4 = 12$ $12 \div 3 = 4$ $12 \div 4 = 3$	2) $7 \times 4 = 28$ $4 \times 7 = 28$ $28 \div 4 = 7$ $28 \div 7 = 4$
3) $5 \times 6 = 30$ $6 \times 5 = 30$ $30 \div 5 = 6$ $30 \div 6 = 5$	3) $30 \div 5 = 6$ $30 \div 6 = 5$ $6 \times 5 = 30$ $5 \times 6 = 30$
4) $8 \times 2 = 16$ $2 \times 8 = 16$ $16 \div 2 = 8$ $16 \div 8 = 2$	4) $24 \div 2 = 12$ $24 \div 12 = 2$ $12 \times 2 = 24$ $2 \times 12 = 24$
5) $20 \div 2 = 10$ $20 \div 10 = 2$ $2 \times 10 = 20$ $10 \times 2 = 20$	5) $9 \times 3 = 27$ $3 \times 9 = 27$ $27 \div 3 = 9$ $27 \div 9 = 3$

Known facts:

1) $60 \div 3 = 20$ 2) $80 \div 4 = 20$ 3) $90 \div 3 = 30$ 4) $20 \div 2 = 10$ 5) $600 \div 3 = 200$	1) $200 \div 4 = 50$ 2) $300 \div 5 = 60$ 3) $600 \div 6 = 100$ 4) $300 \div 6 = 50$ 5) $800 \div 4 = 200$
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Grouping:

1) $12 \div 4 = 3$ 2) $15 \div 5 = 3$ 3) $21 \div 3 = 7$ 4) $22 \div 2 = 11$ 5) $28 \div 4 = 7$	1) $24 \div 4 = 6$ 2) $39 \div 3 = 13$ 3) $45 \div 3 = 15$ 4) $72 \div 6 = 12$ 5) $84 \div 4 = 21$
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Extra challenge:

Remainders

1) $13 \div 2 = 6 \text{ r}1$	1) $24 \div 5 = 4 \text{ r}4$
2) $16 \div 5 = 3 \text{ r}1$	2) $37 \div 3 = 12 \text{ r}1$
3) $17 \div 4 = 4 \text{ r}1$	3) $53 \div 5 = 10 \text{ r}3$
4) $22 \div 5 = 4 \text{ r}2$	4) $62 \div 4 = 15 \text{ r}2$
5) $23 \div 3 = 7 \text{ r}2$	5) $75 \div 6 = 12 \text{ r}3$