Division Strategies

Use Multiplication Facts

For short division sums you can use your times tables.

$$42 \div 7 = ?$$

You can work this out by...

$$? \times 7 = 42$$

$$6 \times 7 = 42 \text{ so } 42 \div 7 = 6$$

Use Skip Counting

$27 \div 3 = ?$

3, 6, 9, 12, 15, 18, 21, 24, 27

That is 9 threes so...

$27 \div 3 = 9$

Use Repeated Subtraction

18÷6=?

18−6=12−6=6−6=0

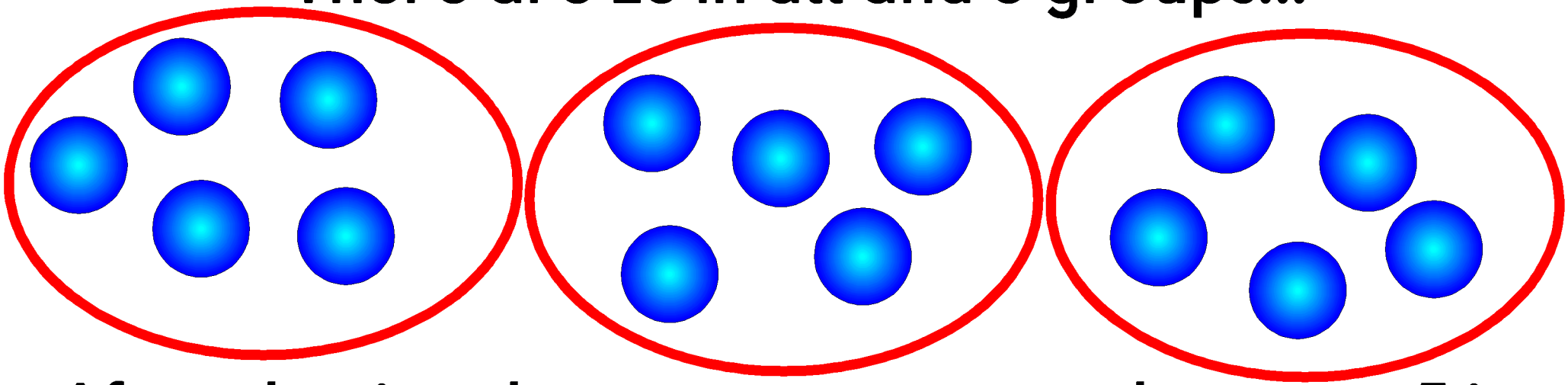
6 could be subtracted 3 times so...

18÷6=3

Draw a Picture

15÷3=?

There are 15 in all and 3 groups...



After sharing them out we can see there are 5 in each group.

15÷3=5

Dividing by 10

To divide a number by 10, move the numbers one place to the right, adding a 0 if necessary.

$14 \div 10 = 1.4$

$280 \div 10 = 28$

$2.6 \div 10 = 0.26$

Dividing by 100

To divide a number by 100, move the numbers two places to the right, adding zeros if necessary.

$4800 \div 100 = 48$

$260 \div 100 = 2.6$

$72 \div 10 = 0.72$

Dividing by 20

To divide a number by 20, divide by two first, then divide by 10.

24÷20=?

24÷2=12

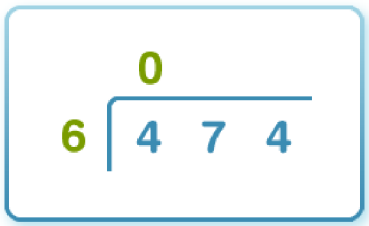
12÷10=1.2

24÷20=1.2

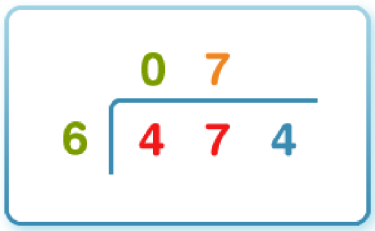
Long Division

If the numbers are too hard to do in your head you can write it down. This way is called long division.

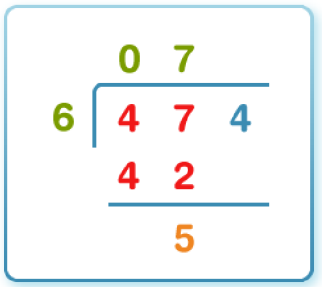
474÷6=?



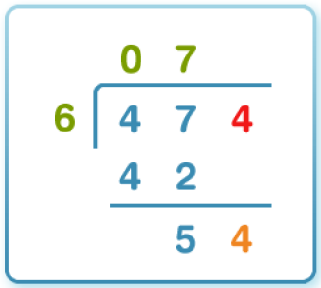
6 doesn't go into 4 so put 0



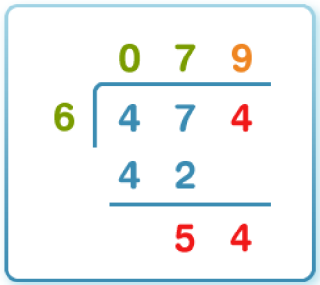
6 goes into 47 seven times



7 x 6 = 42. Take 42 away from 47 to get the remainder of 5.



Bring down the next digit, the 4



6 into 54 goes 9 times with no remainder

474÷6=79

Chunking Method

175÷5=?

We are working out how many groups of a number will fit into another number by making chunks, using multiples we know.

175
- 50 (10x5)
125
- 50 (10x5)
75
- 50 (10x5)
25
- 25 (5x5)
0

35 groups of 5 have been subtracted

Therefore 175÷5=35

Chunking With Remainders

73÷5 How many 5s make 73?

73

- 50 (10x5)

23

- 20 (4x5)

3

How many 5s have been subtracted?

14 sets of 5, with 3 left over.

73÷5=14 r3

Using Factors

Numbers can be split into factors to make division easier.

If I divide by two numbers successively, I get the same answer as dividing by their product.

For example, (48 ÷ 3) ÷ 2 is the same as 48 ÷ 6.

Example: 240 ÷ 16 =

240 ÷ 8 = 30

30 ÷ 2 = 15