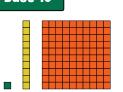
Multiplication and Division Knowledge Organiser

Maths

Counters



Base 10



Bar model

10 x 5	5	5	5	5	5	5	5	5	5	5	
5 x 10	10		10		10		10		10		

Multiply by 1 and 0

When you multiply any number by 1, it will equal the number you started with.

When you multiply by 0, the answer will

always be 0.

 $2 \times 0 = 0$





Multiply by 10 and 100

Th	Н	T	0	Tenth	Hundredth
		3	5		
	3	5	0		
3	5	0	0		

$$35 \times 10 = 350$$

 $35 \times 100 = 3500$

x10 move digits 1 place to the left

x100 move digits 2 places to the left

Divide by 10 and 100

Th	Н	Т	0	Tenth	Hundredth
		3	5		
			3	5	
			0	3	5

$$35 \div 10 = 3.5$$

$$35 \div 100 = 0.35$$

÷10 move digits 1 place to the right

÷100 move digits 2 place to the right

Divide a number by 1 and itself

When you divide any number by 1, it will equal the number you started with.

$$2 \div 1 = 2$$



When you divide a number by itself, the answer will always be 1.

$$2 \div 2 = 1$$







Multiplication and Division Knowledge Organiser

Maths

Multiplication and division facts up to 12 x 12

$$2 \times 3 = 6$$
 $3 \times 2 = 6$

$$3 \times 2 = 6$$

$$6 \div 2 = 3$$
 $6 \div 3 = 2$

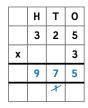
$$6 \div 3 = 2$$

Multiply 2 and 3 digits by 1 digit - written method

325×3

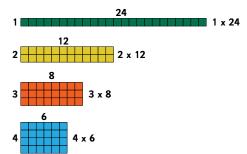
- 1) Multiply the ones x ones (5 x 3 = 15 ones)
- 2) Exchange the one ten into the tens column
- **3)** Multiply the ones x tens $(3 \times 2 \text{ (tens)} = 6 \text{ tens})$
- **4)** Add the exchanged 10 (6 + 1 = 7 tens)
- **5)** Multiply the ones x hundreds (3 x 3 (hundreds) = 9 hundreds)

Hundreds	Tens	Ones
100 100 100	10 10	
100 100 100	10 10	
100 100 100	10 10	



Factor pairs

Factor pairs of 24 = numbers that multiply together to make 24



6 8 12 24 1 2 3 4

Divide 2 and 3 digits by 1 digit - sharing into equal groups

$$484 \div 4 = 121$$

Hundreds	Tens	Ones		
100	10 10	1		
100	10 10	1		
100	10 10	1		
100	10 10	1		

