Maths

Multiplication and Division Y5

Knowledge

- Multiples
- Factors
- Prime numbers
- Square numbers
- Cube numbers
- Multiples of 10, 100 and 1000

Skills

- Multiply 4-digits by 1-digit
- Multiply 2-digits (area model)
- Multiply 2-digits by 2-digits
- Multiply 3-digits by 2-digits
- Multiply 4-digits by 2-digits
- Divide 4-digits by 1-digit
- Divide with remainders
- Common factors
- Multiply by 10, 100 and 1000
- Divide by 10, 100 and 1000

Vocabulary

Multiply, multiplication, factor, common factor, multiply by, prime numbers, square numbers, divide, divide by, bus stop, remainder, quotient, divisor, product, dividend

Multiplication Methods

Method 1
Long Column Multiplication

27 x 63 = 1,701

	2	7	
×	6	3	
	8	2	1
6	4	2	0
1	7	0	1
	1		

3,250 x 26 = 84,500

		3	2	5	0	
×				2	6	
	1	9	5	0	0	(3,250 × 6)
	6	5	0	0	0	(3,250 × 20)
	8	4	5	0	0	

Method 2
Short Column Multiplication

4,521 x 3 = 13,563

	4	5	2	1
X				3
1	3	5	6	3

Division Methods

4,223

		2		3
4	4	8	9	12

196 ÷ 6 = 32r4

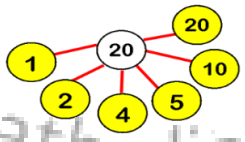
	3	2	r4
6	1	19	16

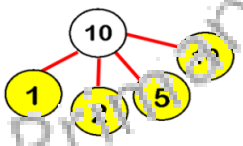
4,894 ÷ 4 = 1,223r2

	1	2	2	3	
4	4	8	9	14	r2

Factors and Common Factors

A factor is a number that multiplies with another number to make a product.





The common factors of 10 and 20 are:
1, 2, 5, and 10.

Prime Numbers

2 3 5 7 11 13 17

19 23 29 31 37 41

43 47 53 59 61 67

71 73 79 83 89 97

Prime numbers have factors of itself and 1.

Square and Cube Numbers

A square number is the product of a number being multiplied by itself.
E.g.
5 x 5 = 25
1, 2, 4, 9, 16, 25, 36, 49, 64, 81, 100, 121, 144

A cube number is the product of a number being multiplied by itself twice.
E.g.
3 x 3 x 3 = 9 x 3 = 27
1, 8, 27, 64, 125, 216, 343, 512, 729, 1000