



# Year 5 Black 3 Unit: Multiplication and Division A Key Vocabulary:

multiples common multiples factors common factors prime numbers square numbers cube numbers multiply divide

# What will I know by the end of this unit?

#### Multiples:

A multiple of a number is any number that is in its times table.

Multiples of 2:

2 4 6 8 10 12 14

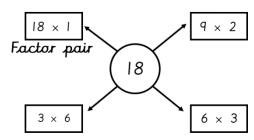
Multiples of 4:

4 8 12 16 20 24 28

Multiples of 6:

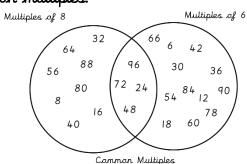
6 12 18 24 30 36 42

### Factors:



The factors of 18 are: 1, 2, 3, 6, 9 and 18

### Common multiples:



## Common factors:

The factors of 12 are: [1, 2] 3, [4] 6 and 12 The factors of 8 are: [1, 2] [4] and 8

1, 2 and 4 are factors of 12 and 8.

1, 2 and 4 are common factors of 12 and 8



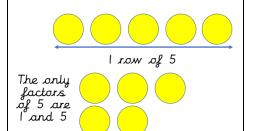
Whitney and Dexter both have dark hair.



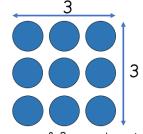
They have dark hair in common.

## Prime numbers:

Integers that have exactly two factors are called Prime Numbers.



#### Square numbers:

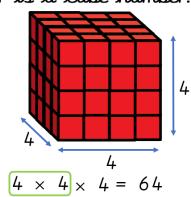


3 rows of 3 counters is equal to 9 counters  $\boxed{3 \times 3} = 9$ 

The product of an integer multiplied by itself is a square number.

#### Cube numbers:

64 is a cube number.



16

## Divide by 10, 100 and 1,000:

J. J						
	TTh	Th	Н	Т	0	
	4	7	0	0	0	
	TTh	Th	Н	Т	0	
		4	7	0	0	47,000 ÷ 10 = 4,700
				_		
	11h	Th	H		0	
			4	7	0	47,000 ÷ 100 = 470
	TTh	Th	Н	Т	0	
				4	7	47,000 ÷ 1,000 = 47

# Multiples by 10, 100 and 1,000:

Here are methos to work out 24 X 20:

#### Method 1

 $24 \times 10 \times 2$ = 240 × 2 = 480

#### Method 2

24 × 2 × 10 = 48 × 10 = 480