HELLO!

Today we are going to revise multiples and factors

Arithmetic Warm Up

1. $7 \times 3 =$

2. $21 \div 7 =$

3. $6 \times 7 =$

4. $\boxed{} \div 6 = 7$

Revision on multiples and factors
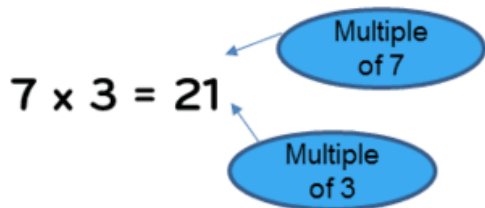
Today we are going to revise how to:

find common multiples and factors

find and explain prime numbers and prime factors

Multiples

Multiple: answer of multiplying a number by another.

$7 \times 3 = 21$

- Multiple of 7
- Multiple of 3

21 is **not** a multiple of 2...why?

Common Multiple: a multiple that is in both the number's times tables

Multiples of 2

2, 4, 6, 8, 10, 12, 14, 16, 18, ...
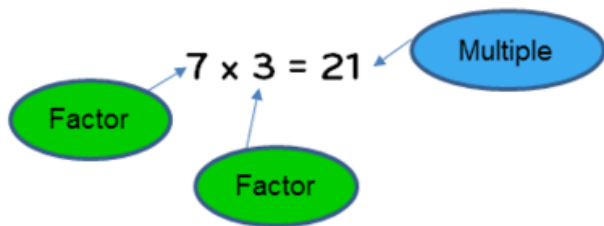
Multiples of 3

3, 6, 9, 12, 15, 18, ...

So, the first three common multiples of 2 and 3 are:

☐ ☐ ☐

Factors

Factor: numbers we multiply together to give the multiple.

$7 \times 3 = 21$

Factor

Factor

Multiple

Common Factor: factor that is the same for different numbers

The four factors of 6 are:

So, the common factors of **6 and 14** are:

The four factors of 14 are:

Question 1

✏️ Complete

Here is a diagram for sorting numbers.

Write **one number** in each box.

One is done for you.

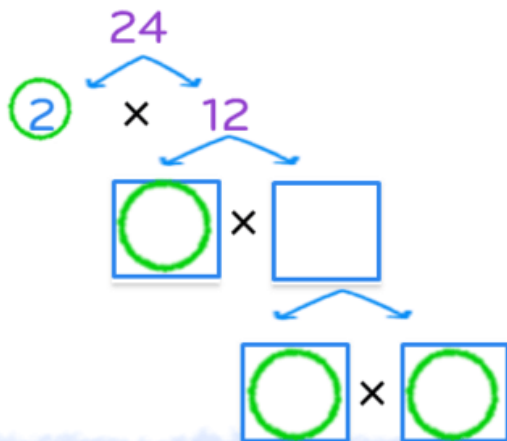|	multiple of 5	**not** a multiple of 5
multiple of 3	30	
not a multiple of 3		

Prime numbers and prime factors

Complete the definition.

A prime number is a number that has exactly [____] factors.

These two factors are always [____] and [____]

The first 5 prime numbers are: _____, _____, _____, _____, _____

Write 24 as a product of its prime numbers by decomposition

24

② × 12

◯ × ☐

◯ × ◯

The prime factors of 24 are:

_____

This can also be written as:

_____

Question 2

A. Circle the **two** prime numbers.

29   39   49   59   69

B. Write 32 as a product of its prime factors.

32

Let's review:

🎧 find common multiples and factors

🎧 find and explain prime numbers and prime factors

Draw a circle around the smiley face to show how you feel about what we've just been doing.
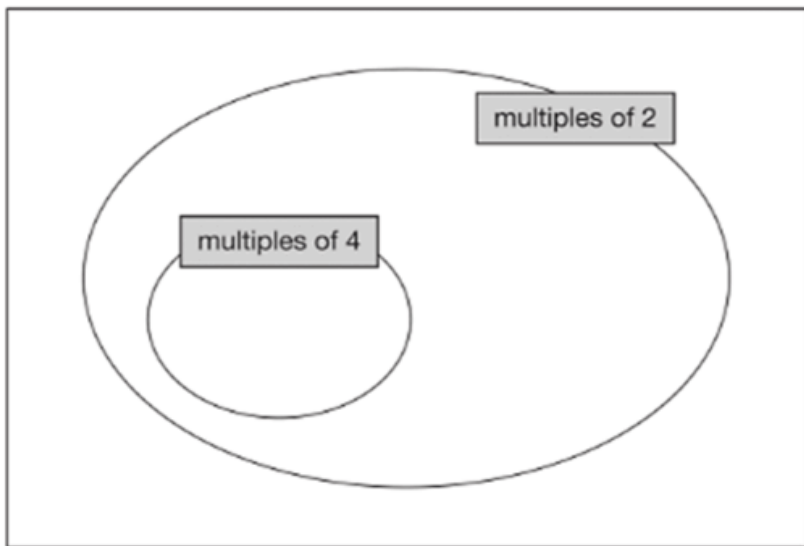
CHALLENGE

Here is a Venn diagram for sorting numbers.

Write each number in its correct place on the diagram.

10   11   12   13

multiples of 2

multiples of 4

You are revising multiples and factors (Meeting Y6 expectations)

Identify multiples of numbers up to 12

1. On the first grid colour the multiples of 2.

91	92	93	94	95	96	97	98	99	100
81	82	83	84	85	86	87	88	89	90
71	72	73	74	75	76	77	78	79	80
61	62	63	64	65	66	67	68	69	70
51	52	53	54	55	56	57	58	59	60
41	42	43	44	45	46	47	48	49	50
31	32	33	34	35	36	37	38	39	40
21	22	23	24	25	26	27	28	29	30
11	12	13	14	15	16	17	18	19	20
1	2	3	4	5	6	7	8	9	10

91	92	93	94	95	96	97	98	99	100
81	82	83	84	85	86	87	88	89	90
71	72	73	74	75	76	77	78	79	80
61	62	63	64	65	66	67	68	69	70
51	52	53	54	55	56	57	58	59	60
41	42	43	44	45	46	47	48	49	50
31	32	33	34	35	36	37	38	39	40
21	22	23	24	25	26	27	28	29	30
11	12	13	14	15	16	17	18	19	20
1	2	3	4	5	6	7	8	9	10

2. On the second grid colour the multiples of 10.

3. Think about colouring the multiples of
   3, 4, 5, 6, 7, 8, 9, 11 and 12.
   Which would give you columns?

Find common multiples by listing multiples

Find some common multiples of 6 and 8 by listing
the first ten multiples of each.

The first 10 multiples of 6 are:

The first 10 multiples of 8 are:

Some common multiples of 6 and 8 are:

Identify factors

Find all the factors of 9, 20 and 24.

9

20

24
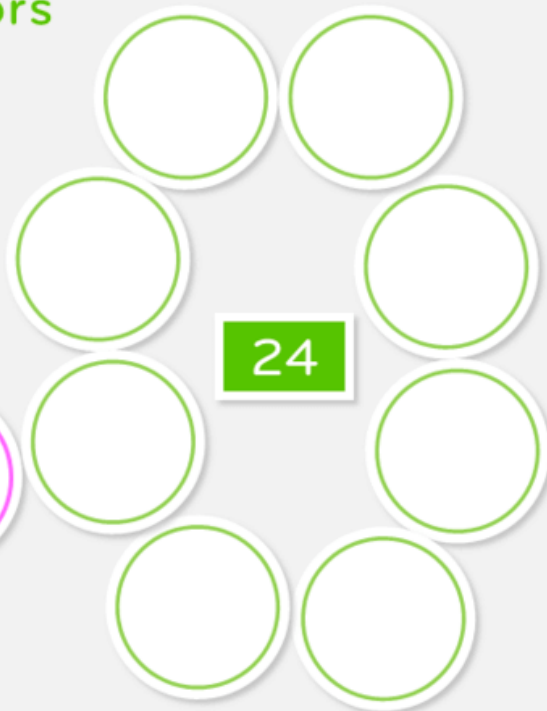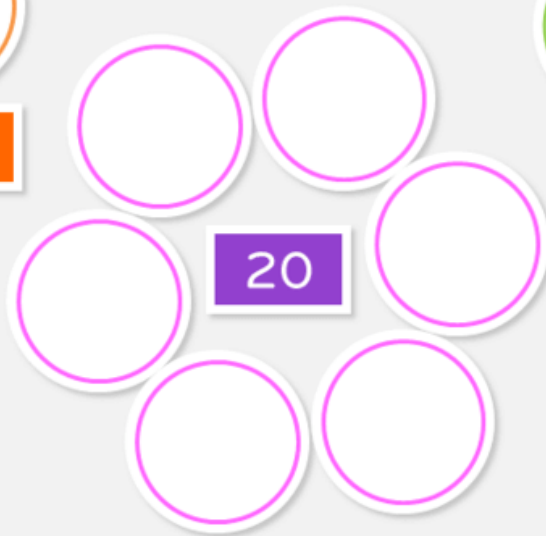
Which is the only factor on this slide that is not in a pair? Why?

THIRD SPACE LEARNING

Know the prime numbers up to 19

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20

How can you quickly find the prime numbers below 20? Let's work through it systematically – cross off numbers that are not prime.

1. Is number 1 prime? Remember - does it have two factors, 1 and itself?

2. Is number 2 prime? Does it have only two factors?

3. What should you do with all remaining multiples of 2? Why?

4. What about number 3 – is this prime?

5. Are there any other multiples of 3 we need to cross off?

6. Do you need to do anything else or have you found all the prime numbers?

Find prime factors by decomposition
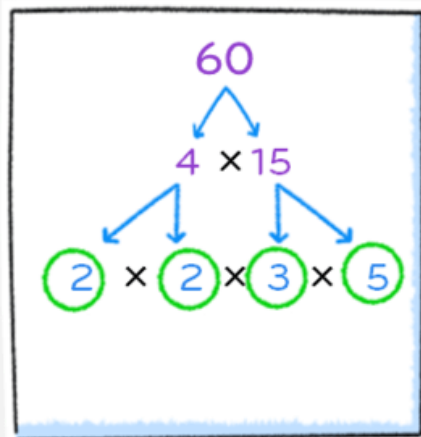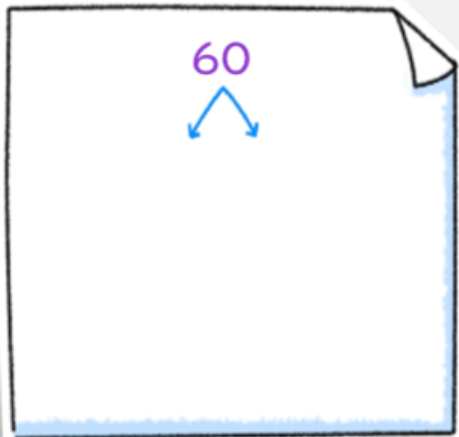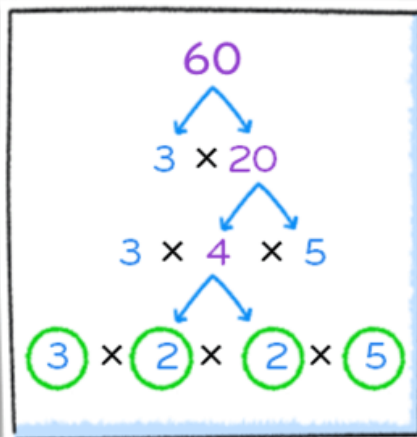
What happens if you do this starting with a different multiplication?