

# Multiples and Factors

## Multiples and Factors

Multiples are related to multiplication.

Multiples are found by multiplying a given number by a counting number.

ie multiples of 4 are found by multiplying a counting number by 4.

ie  $2 \times 4 = 8$

$3 \times 4 = 12$

$4 \times 4 = 16$

8, 12 and 16 are all multiples of 4.

We know that repeat addition is also the same as multiplying ..... so ..... skip counting by a given number will also make a list of multiples of that number.

4, 8, 12, 16, 20, 24, ...

How do multiples help us in maths.

They help us when completing division problems.

As division and multiplication are related then multiples and division are related.

We know that  $3 \times 6 = 18$ .

so 18 is a multiple of 3 and 6.

because 18 is a multiple of 3 and 6 .....

it must also be divisible by 3 and 6.

3 is a factor of 18

$$3 \times 6 = 18$$

6 is a factor of 18

18 is a multiple of 6

18 is a multiple of 3

2, 4, 6, 8, 10, 12, 14, 16, 18 are all multiples of 2

4, 8, 12, 16, 20, 24, 28, 32 are all multiples of 4

3, 6, 9, 12, 15, 18, 21, 24 are all multiples of 3

6, 12, 18, 24, 30, 36, 42 are all multiples of 6

5, 10, 15, 20, 25, 30, 35, 40 are multiples of 5

10, 20, 30, 40, 50, 60, 70 are multiples of 10

7, 14, 21, 28, 35, 42, 49, 56 are all multiples of 7

Multiples of 2 are always          numbers.

I always have a 5 or 0 in the ones place. I am a multiple of

I always have a 0 in the ones place. I am a multiple of

My digits always add to a multiple of 3, I am a multiple of

(105 – the digits  $1 + 0 + 5 = 6$ ) ( 36 – the digits  $3 + 6 = 9$ ) ( 78 – the digits  $7 + 8 = 15$ )

Mark the multiples of 2 with an X          31 43 34 56 65 87 104 401 302 105 501

Mark the multiples of 3 with an X          31 43 34 56 65 87 104 401 302 105 501

Mark the multiples of 5 with an X          31 43 34 56 65 87 104 401 302 105 501

$5 \times 7 = 35$  so 35 is a multiple of          and          .

$8 \times 6 = 48$  so 48 is a multiple of          and          .

$14 \times 3 = 42$  so factors of 42 are          and          .

$7 \times 9 = 63$  so factors of 63 are          and          .

$7 \times 7 = 49$  so 49 is a multiple of          .

Mark with an X

Which of these numbers are divisible by 2          51 120 140 405 82 28 39 81 105

Which of these numbers are divisible by 3          51 120 140 405 82 28 39 81 105

Which of these numbers are divisible by 5          51 120 140 405 82 28 39 81 105