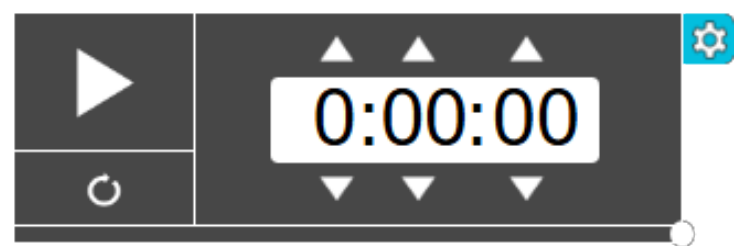


Warm-up



Let's review.....

What is a multiple???

List the first 10 multiples of 4

4, 8, 12, 16, 20, 24, 28, 32, 36,
 1×4 , 2×4 , 3×4 , 4×4 , 5×4

40

Label the loops **Multiples of 6** and **Multiples of 8**.

Sort these numbers in the Venn diagram:

~~72~~, ~~36~~, ~~24~~, ~~18~~, ~~32~~, 64

$8 \times 9 = 72$

$6 \times 12 = 72$

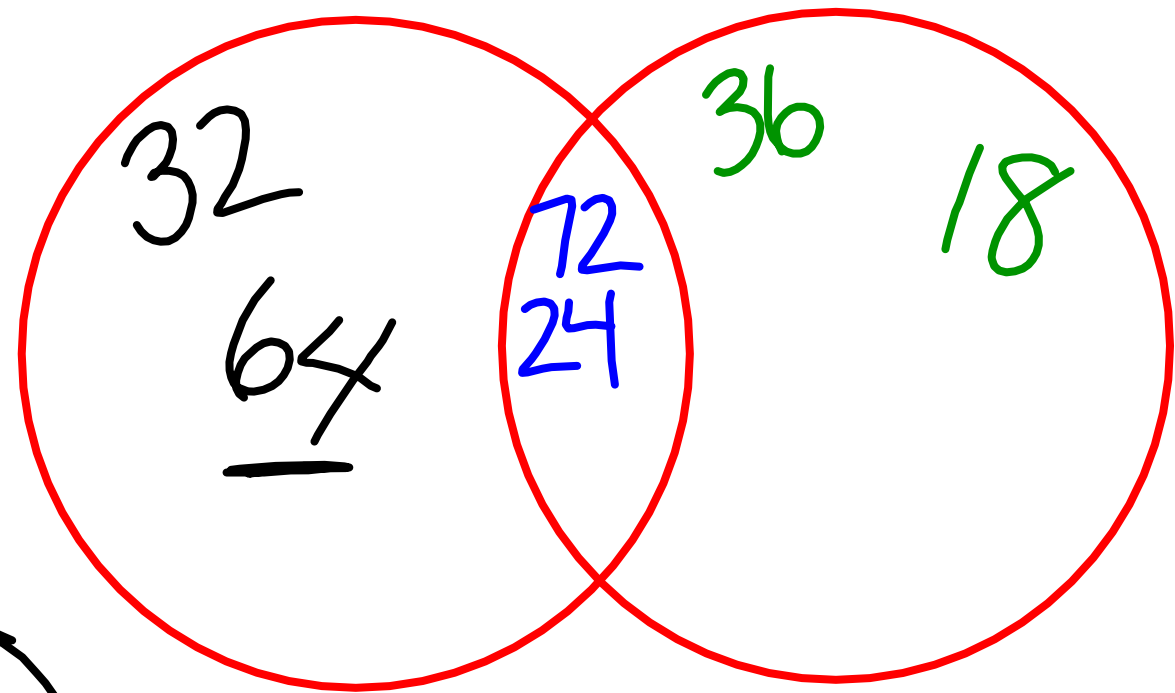
$6 \times 6 = 36$

$8 \times 3 = 24$

$6 \times 4 = 24$

Multiples of 8

Multiples of 6



$$\begin{array}{r} 60 \\ \hline 6 \times 10 \end{array}$$

6×6

6×11



- Factor – a number that is multiplied by another to give a product.
- ~~a number that divides evenly into another number~~

ex) $7 \times 8 = 56$

factors product

Product - answer to a **multiplication** problem

We can do this together.

List the factors of 48:

48

$$1 \times 48$$

$$2 \times 24$$

$$3 \times 16$$

$$4 \times 12$$

$$6 \times 8$$

Try on your own

List the factors of 63

63

$$1 \times 63 \checkmark$$

$$3 \times 21$$

$$7 \times 9$$

Common Factors

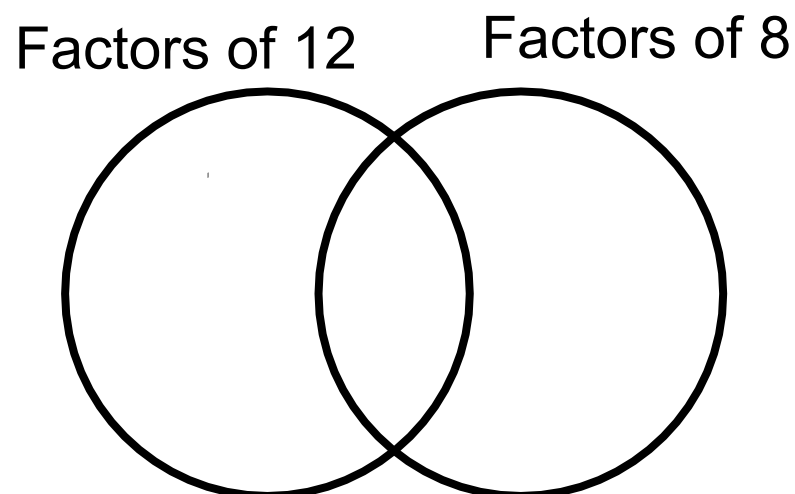
A **common factor** is a whole number that divides evenly into two or more different numbers without leaving a remainder

Greatest Common Factor (GCF) is the greatest factor that two or more numbers have in common



Common factors of 12 and 8 are:

You can display this in a Ven diagram



List the factors of any numbers separately then circle the factors they have in common.

Ex) Find the factors of 12 and 8

List factors of 12

$$\begin{array}{l} 12 \\ \textcircled{1} \times 12 \\ \textcircled{2} \times 6 \\ 3 \times \textcircled{4} \end{array}$$

List the factors of 8

$$\begin{array}{l} 8 \\ \textcircled{1} \times 8 \\ \textcircled{2} \times \textcircled{4} \end{array}$$



common factors 1, 2, 4

Let's find the greatest common factor between 24 and 36

24

1	x	24
2	x	12
3	x	8
4	x	6

36

1	x	36
2	x	18
3	x	12
4	x	9
6	x	6

$$\text{GCF} = 12$$

Homework: worksheet

Which numbers below are multiples of 6?

What strategy did you use to find out?

36 70 66 42 54 27 120 81

Which of the numbers 21, 24, 45, 30, 42, 60, and 84 are multiples of:

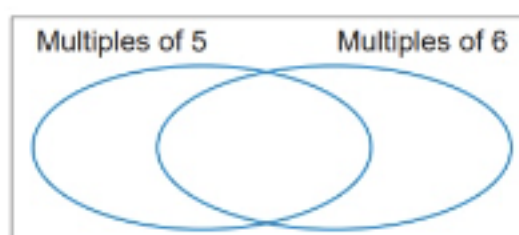
a) 3? b) 12? c) 7? d) 15?

10. Make a large copy of this Venn diagram.

Sort these numbers.

45, 24, 52, 30, 66, 15, 85, 90, 72, 60, 20, 38

What can you say about the numbers in the overlap?



List all the factors of each number.

a) 6 b) 9 c) 25 d) 30 e) 12
f) 50 g) 28 h) 98 i) 20 j) 63

Which numbers below are factors of 80?

How do you know?

a) 2 b) 3 c) 4 d) 5
e) 6 f) 8 g) 9 h) 10

