Factors and Multiples   Assignment   **Math 4**

Let's look at factors and multiples in an equation.

$$4 \times 5 = 20$$

Factor   Factor   Multiple
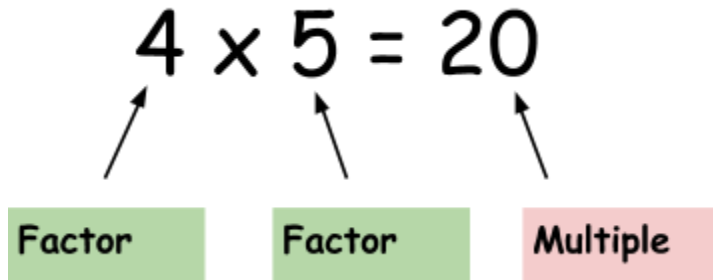
What is a factor?

-The numbers that are multiplied to get a given number.

For example…

Find all the

Factors of 16.

16	
1	16
2	8
4	4

Ask yourself…
What factors can I multiply together to get the product??

1 x 16=16
2x8=16
4x4=16

Factors of 16 are 1, 2, 4, 8, 16

- The first factor of every number greater than 0 is 1.

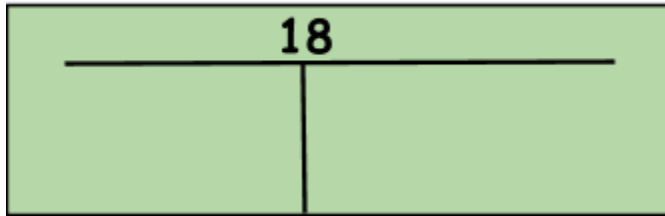- Factors never go beyond the number you are finding factors for.

Factors and Multiples   Assignment   **Math 4**

Let's try…
Find all the factors of 18
Ask yourself…
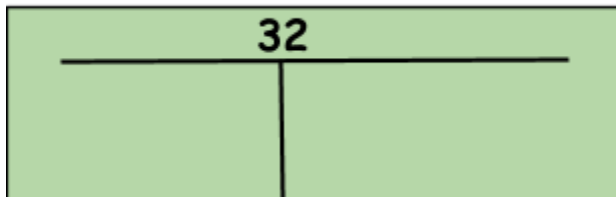
What factors can I multiply together to get 18?

Factors of 18 are _____

Let's try…
Find all the factors of 32

Ask yourself…

What factors can I multiply together to get 32?
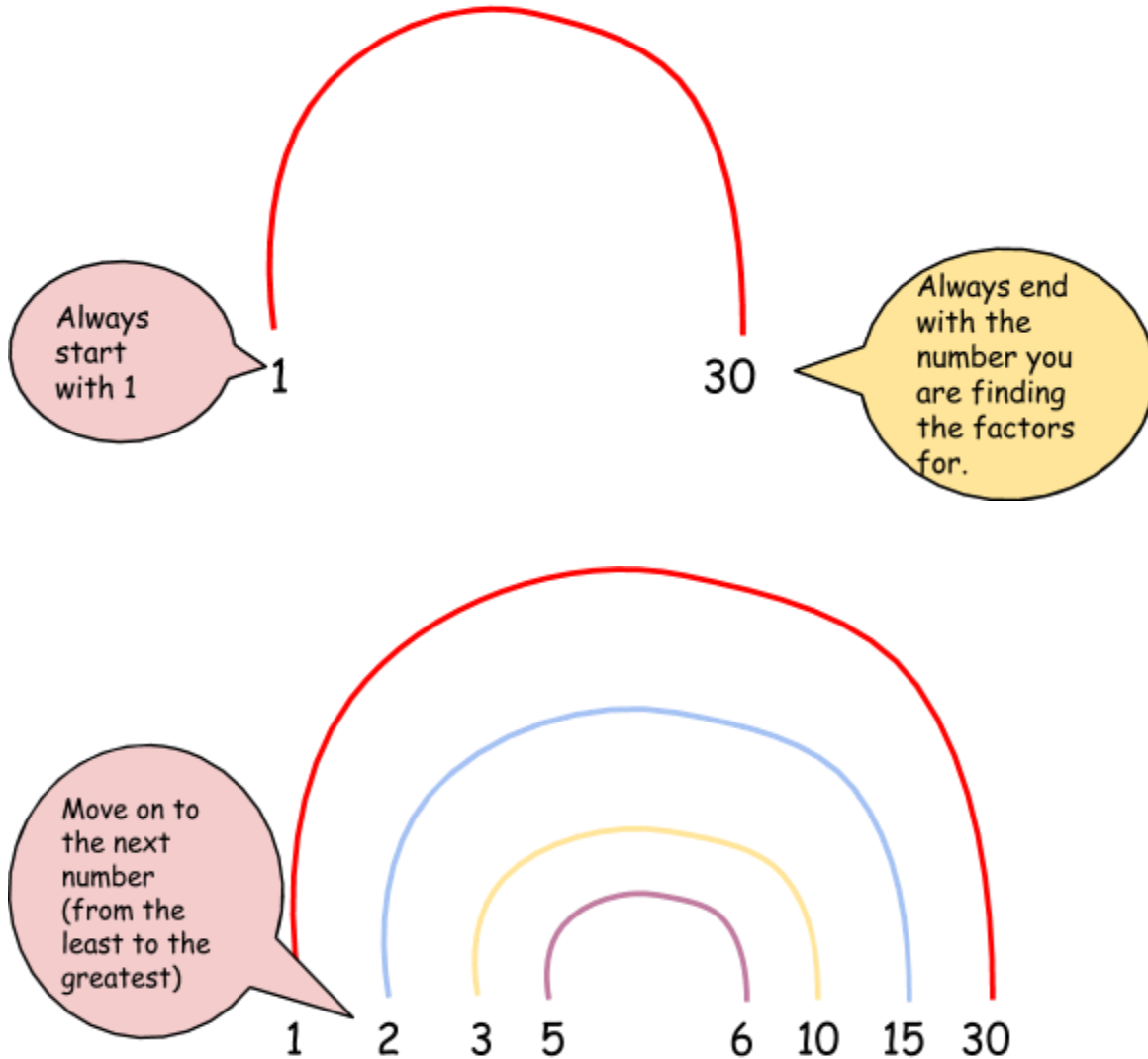

Factors of 32 are _____

Factors and Multiples   Assignment   **Math 4**

You can draw a Factor Rainbow to find all the factors!

Find all the factors of 30

Always start with 1

1   30

Always end with the number you are finding the factors for.

Move on to the next number (from the least to the greatest)

1   2   3   5   6   10   15   30
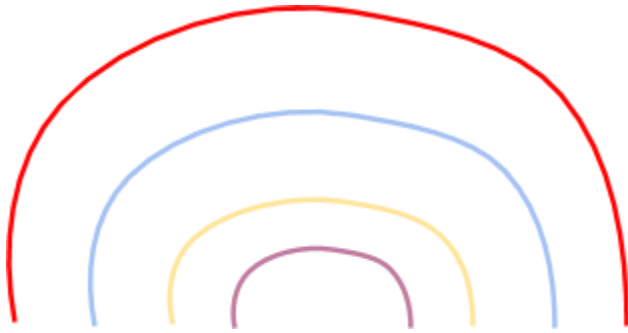
Factors of 30 are 1,2,3,5,6,10,15,30

Factors and Multiples   Assignment   **Math 4**

Let's try…
Find all the factors of 48
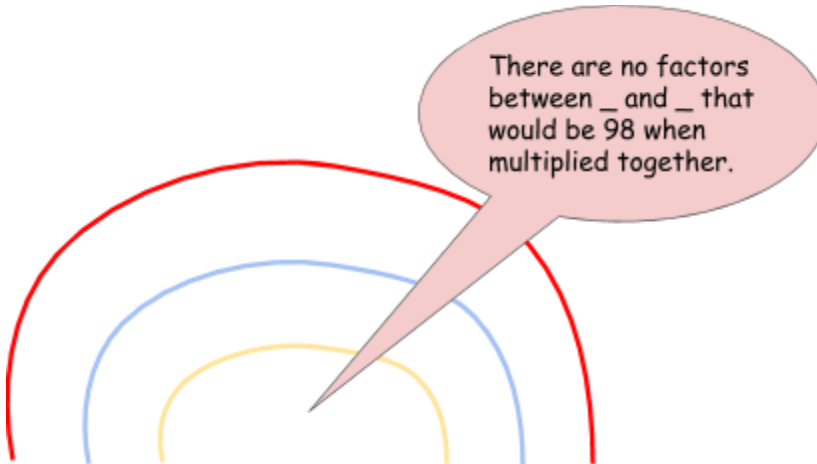
Let's draw a factor rainbow.

Factors of 48 are _____

Let's try…
Find all the factors of 98

Let's draw a factor rainbow.

> There are no factors between _ and _ that would be 98 when multiplied together.

Factors of 98 are _____

Factors and Multiples Assignment **Math 4**

What is a <u>multiple</u>?

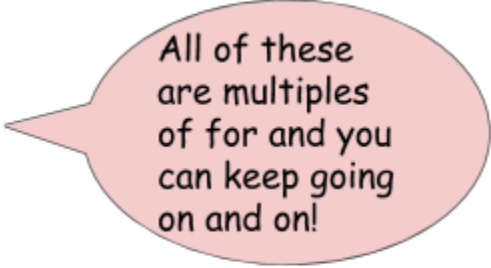-The product of a given number and another factor multiplied together.

For example...

What is multiples of 4?

4x1=4

4x2=8

4x3=12

4x4=16

4x5=20

All of these are multiples of for and you can keep going on and on!

- There is no limit to the number of multiples a number can have.

- The first multiple of every number greater than zero is the number you are finding multiples for.

Let's try..

Find all the first 6 multiples of 6

Think this way...
Multiple = Product.
Keep multiplying until you get 6 products.

6 x 1 = _   6 x 2 = ___   6 x 3 = ___

6 x 4 = ___   6 x 5 = ___   6 x 6 = ___

The first 6 multiples of 6 are _____

Factors and Multiples   Assignment   **Math 4**

Let's try...

What are the first 6 multiples of 10?

$10 \times 1 =$ ___ $10 \times 2 =$ ___ $10 \times 3 =$ ___

$10 \times 4 =$ ___ $10 \times 5 =$ ___ $10 \times 6 =$ ___

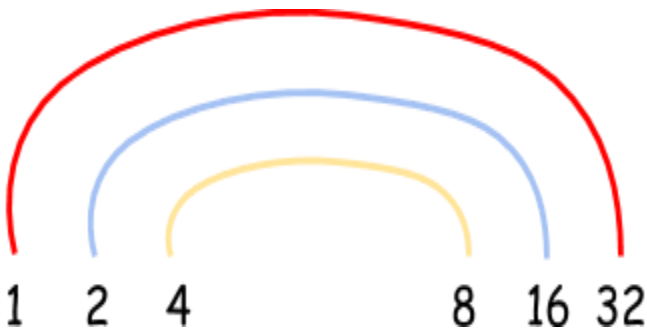The first 6 multiples of 10 are _____

Factors and Multiples   Assignment   **Math 4**

What is a <u>factor pair</u>?

-Factor pair of a number is two numbers that you can multiply together to get the target number.

For example…

What are the factor pairs for 32?

1   2   4   8   16   32

1 x 32 = 32

2 x 16 = 32

4 x 8 = 32

Would 2 & 32 be a factor pair?
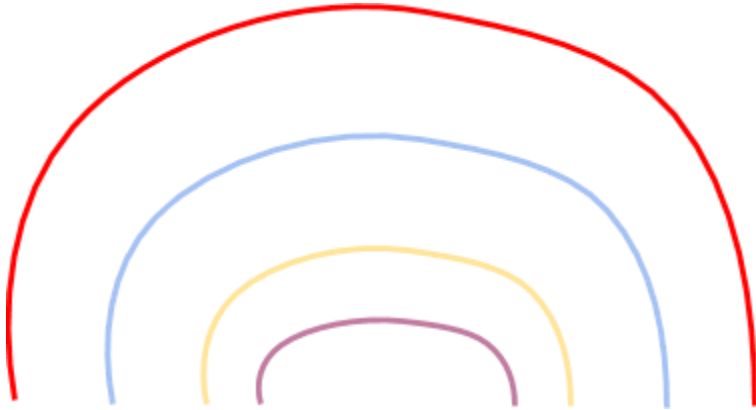- No, because they don't make 32 when multiplied together.

Answer: 1&32, 2&16, 4&8 are the factor pairs for 32.

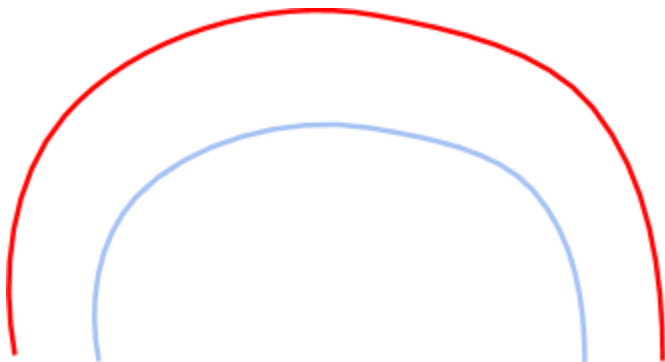**Factors and Multiples**   Assignment   **Math 4**

Let's try...
What are the factor pairs for 56?

_____ are the factor pairs for 56.

Let's try...
What are the factor pairs for 95?

_____ are the factor pairs for 95.

What is a prime number?

A prime number has only two factors: 1 and itself.

2 is a prime number

Why?

1   2

It's because 2 has only two factors, 1 and 2.

17 is a prime number

Why?

1   17

It's because 17 has only two factors, 1 and 17.

True or False?

"29 is a prime number."

Let's find the factors of 29 and find out if 29 is a prime number or not.

1   29

Is there any other numbers that make 29 when multiplied together?

Yes/No

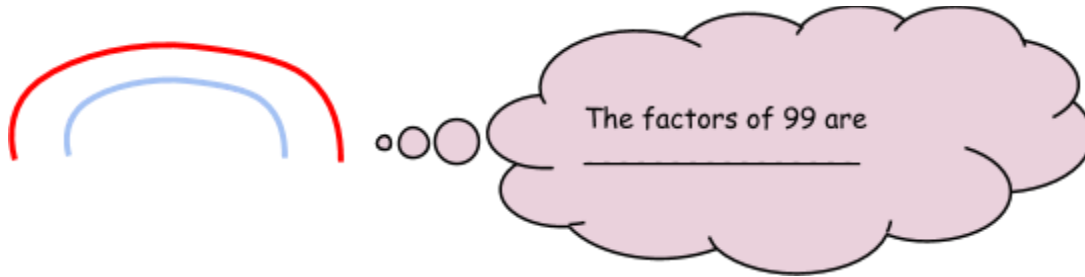The statement is _____ because _____

Factors and Multiples   Assignment   **Math 4**

True or False?

"99 is a prime number."

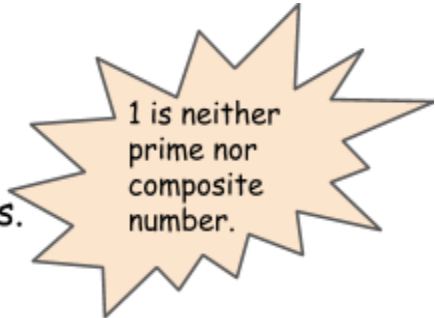Let's find the factors of 99 and find out if 99 is a prime number or not.

The factors of 99 are
_____

The statement is _____ because _____

Factors and Multiples   Assignment   **Math 4**
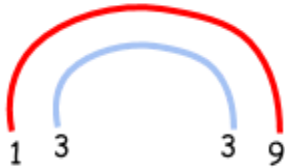
What is a <u>composite number</u>?

A composite number has more than two factors.

> 1 is neither prime nor composite number.

9 is a composite number

Why?   It's because 9 has more than two factors.

1 3   3 9

32 is a composite number

Why?   It's because 32 has more than two factors.
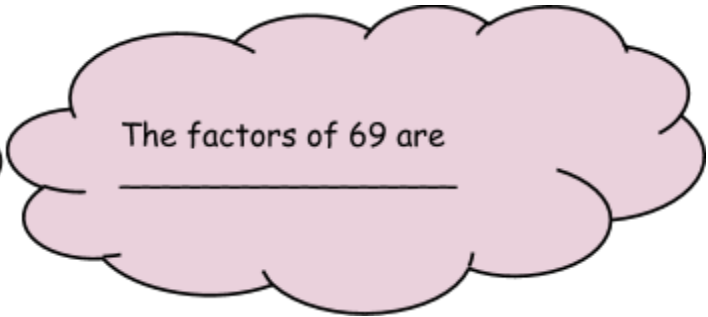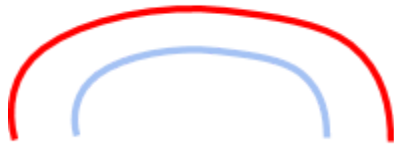
1 3   3 9

True or False?

"69 is a composite number."

Let's find the factors of 69 and find out if 69 is a composite number or not.

Factors and Multiples   Assignment   **Math 4**
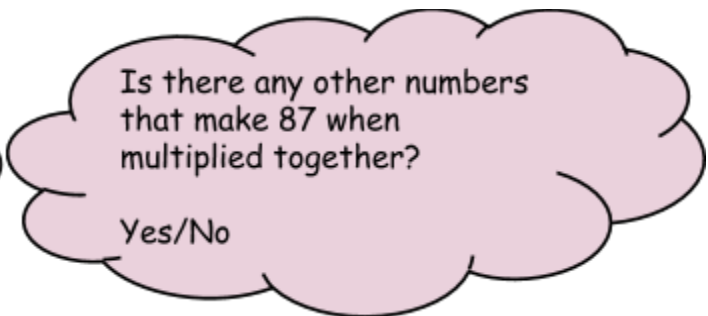
The factors of 69 are
_____

The statement is _____ because _____

True or False?

"87 is a composite number."

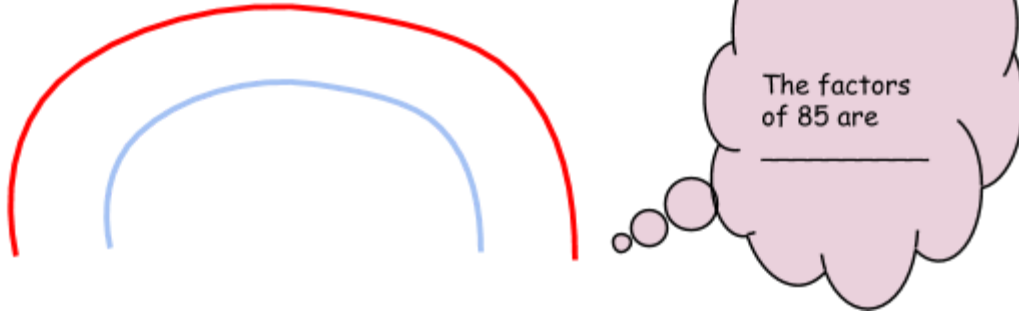Let's find the factors of 87 and find out if 87 is a composite number or not.

Is there any other numbers that make 87 when multiplied together?

Yes/No

The statement is _____ because _____

Factors and Multiples   Assignment   **Math 4**

Let's try…

Is 85 a prime or composite number?

The factors
of 85 are
_____

Answer: _____

Let's try…

Is 67 a prime or composite number?

Is there any other numbers
that make 67 when
multiplied together?

Yes/No

Answer:

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