Factors, Prime Numbers & Composite Numbers

Every number has **factors**. The better you know your multiplication tables, the easier it is to identify all the factors of a number. The factors are the digits making up the multiples. If you are asked to state the factors of a specific number, you need to write down all the various ways you can multiply numbers together to get that specific number. Once you have found the factors, you then list them, in order, from least to greatest.

For example: List the factors of 12.

Multiples are: 1 x 12

2 x 6

3 x 4

The factors of 12 = 1, 2, 3, 4, 6, 12. (listed from least to greatest).

Multiples are classified as either **prime numbers** or **composite numbers.**

If a number only has two factors and they are **1** and the **number itself**, then that number is a **prime number.** In other words, you can only divide a prime number by one and itself.

If a number has more factors, then it is a **composite number.**

Prime numbers

The smallest prime number is also the only **even** prime number. It is the number 2.

All other prime numbers are odd numbers (but not all odd numbers are prime – check your multiplication tables!)

List all the prime numbers between 1 and 30.

Composite numbers

All numbers which are not prime numbers are composite numbers.

All even numbers except 2 are composite numbers.

Some odd numbers are composite (example: 21 is an odd number but not a prime number it is a composite number because its factors are: 1, 3, 7, 21. So, it has 4 factors and prime numbers only have 2 factors.)

Prime Numbers or Composite Numbers?

1) 15 _____

3) 37 _____

5) 93 _____

7) 2 _____

2) 89 _____

4) 70 _____

6) 19 _____

8) 21 _____

Circle all the prime numbers.

13   86   5   20   71   90   95   41

29   53   8   67

Circle all the composite numbers:

66   3   82   16   9   59

47   75   97   38   61   44

Below = q + a.

Prime Numbers or Composite Numbers?

A) Write if each number is prime or composite.

1) 15 _____

2) 89 _____

3) 37 _____

4) 70 _____

5) 93 _____

6) 19 _____

7) 2 _____

8) 21 _____

B) Circle all the prime numbers.

13	86	5	20	71	90
95	41	29	53	8	67

C) Circle all the composite numbers.

66	3	82	16	9	59
47	75	97	38	61	44

Prime Numbers or Composite Numbers? *Answer Key*

A) Write if each number is prime or composite.

1) 15   **composite**   2) 89   **prime**

3) 37   **prime**   4) 70   **composite**

5) 93   **composite**   6) 19   **prime**

7) 2   **prime**   8) 21   **composite**

B) Circle all the prime numbers.

(13)   86   (5)   20   (71)   90

95   (41)   (29)   (53)   8   (67)

C) Circle all the composite numbers.

(66)   3   (82)   (16)   (9)   59

47   (75)   97   (38)   61   (44)