***Divisibility Rules***

**A number is evenly divisible by (has that number as a factor):**

**1: all numbers have ‘1’ and themselves as factors**

**2: if the number ends in a 0, 2, 4, 6, or 8**

 **(That makes it an even number)**

**3: if the digital sum is a 3, 6 or 9**

 **(Add together all the digits of the number to get the digital sum)**

e.g. 351 is divisible by 3 because 3 + 5 + 1 = 9

**4: if, when you divide the number by 2, the answer is an even number**

**5: if the last digit of the number is a 5 or a 0**

**6: if the number is divisible by both 2 and 3 (They are factors of the number)**

**10: if the number ends in a zero**

**Example: Searching for all the factors of 36 (all the numbers that divide evenly into 36) Systematically check out these numbers to find those that divide evenly into 36. Then use the ‘partner factor’ (the answer when you divide) to find all the factors:**

**1? - all numbers have ‘1’ and themselves as factors! \*36 divided by 1 = 36.**

**2? – YES, because 36 ends in ‘6’ – it’s an even number. \*36 divided by 2 = 18.**

**3? – YES, because the digital sum of 36, 3 + 6, is 9. \*36 divided by 3 = 12.**

**4? – YES, because after you divide 36 by 2, you get 18, and 18 is an even number; it ends in ‘8’**

 **\*36 divided by 4 = 9.**

**5? – NO, 36 doesn’t end in a zero or ‘5’**

**6? – YES, because both 2 and 3 are factors. 36 divided by 6 = 6.**

**10? – NO, 36 doesn’t end in a zero**

***The factor pairs are: 1 X 36, 2 X 18, 3 X 12, 4 X 9, 6 X 6.***

***So … all the factors of 36 (in order) are: 1, 2, 3, 4, 6, 9, 12, 18, 36***