Divisibility Rules Worksheet **Name:**_____

The divisibility rules make math easier. Did you ever wonder how people could tell if something was divisible by a number just by looking at it? These rules are how they do it. Memorize a few simple rules and simplifying fractions and prime factorization will be so much easier.

Number	Divisibility Rule	Example
Two (2)	A number is divisible by two if it is **even**. Another way to say a number is even is to say it ends in 0, 2, 4, 6 or 8.	642 is divisible by two because it ends in a two, which makes it an even number
Three (3)	A number is divisible by there if the **sum of the digits adds up to a multiple of three** (3, 6, 9, 12, 15…).	423 is divisible by three because 4 + 2 + 3 = 9. Since nine is a multiple of three (or is divisible by three), then 423 is divisible by three
Four (4)	A number is divisible by four if it is even and **can be divided by two twice**.	128 is divisible by four because half of it is 64 and 64 is still divisible by two
Five (5)	A number is divisible by five if it **ends in a five or a zero.**	435 is divisible by five because it ends in a five
Six (6)	A number is divisible by six if it is **divisible by both two and three.**	222 is divisible by six, because it is even, so it is divisible by two and its digits add up to six, which makes it divisible by three
Nine (9)	A number is divisible by nine if the **sum of the digits adds up to a multiple of nine** (9, 18, 27, 36…). This rule is similar to the divisibility rule for three.	9243 is divisible by nine because the sum of the digits adds up to eighteen, which is a multiple of nine.
Ten (10)	A number is divisible by ten if it **ends in a zero.** This rule is similar to the divisibility rule for five.	730 is divisible by ten because it ends in zero.