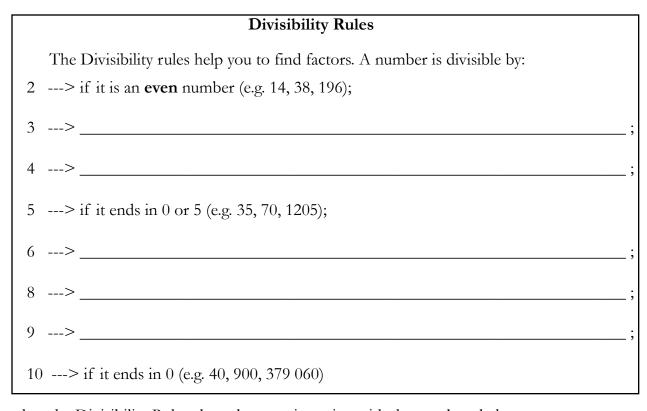# Creating Rules of Divisibility for Grade 7

A divisibility rule is _____

_____ .

We can create a set of rules that we can use to determine if a number is divisible by certain other numbers. We can call this Divisibility Rules.

Divisibility Rules

The Divisibility rules help you to find factors. A number is divisible by:

2 ---> if it is an **even** number (e.g. 14, 38, 196);

3 ---> _____ ;

4 ---> _____ ;

5 ---> if it ends in 0 or 5 (e.g. 35, 70, 1205);

6 ---> _____ ;

8 ---> _____ ;

9 ---> _____ ;

10 ---> if it ends in 0 (e.g. 40, 900, 379 060)

Complete the Divisibility Rules above by experimenting with the numbers below:

a. 27, 300, 111, 5121, 2415   - these are all divisible by 3
                             - add up the digits of each number - is there a clue?

b. 148, 404, 399 688, 716   - these are all divisible by 4
                             - look at the last <u>two</u> digits of each number - does that help?

c. 36, 402, 91 122, 102   - these are all divisible by 6
                             - they are also divisible by what two other numbers?
                               (hint: they are less than 6)

d. 1888, 4400, 3160   - these are all divisible by 8
                             - look at the last <u>three</u> digits of each number - do you see it?

e. 54, 8001, 73 611, 8892   - these are all divisible by 9
                             - this is similar to the rule for 3, only it is 9

2. Circle the following numbers that are divisible by 3.

| 630 | 1701 | 960 | 1412 | 954 | 2354 |

763   4251   885   5241   62 160   28 312

3. Circle the following numbers that are divisible by 4.

324   630   7168   3354   976   894

6528   480   2616   84   6082   35 636

4. Circle the following numbers that are divisible by 6.

876   789   4230   888   8433   124

5. Circle the following numbers that are divisible by 8.

2168   3124   4128   42 168   53 124   74 128

6. Circle the following numbers that are divisible by 9.

181   2015   5409   70 245   702   108

7. The number 3240 is divisible by what numbers from 2 to 10?

_____

8. The number 17 535 is divisible by what numbers from 2 to 10?

_____