Grade 7 Math
Unit 1 Notes: Patterns & Relations

Section 1.1: Patterns in Division

Dividing by 2

All even numbers are divisible by 2. E.g., all numbers ending in 0,2,4,6 or 8.

Dividing by 4

1. Are the last two digits in your number divisible by 4?
2. If so, the number is too!
3. For example: 358912 ends in 12 which is divisible by 4, thus so is 358912.

Dividing by 5

1. Numbers ending in a 5 or a 0 are always divisible by 5.

Dividing by 8

1. This one's not as easy, if the last 3 digits are divisible by 8, so is the entire number.
2. Example: 6008 - The last 3 digits are divisible by 8, therefore, so is 6008.

Dividing by 10

1. If the number ends in a 0, it is divisible by 10.

Section 1.2: More Patterns in Division

Dividing by 3

1. Add up all the digits in the number.
2. Find out what the sum is. If the sum is divisible by 3, so is the number
3. For example: 12123 (1+2+1+2+3=9) 9 is divisible by 3, therefore 12123 is too!

Dividing by 6

1. If the Number is divisible by 2 and 3 it is divisible by 6 also.

Dividing by 9

1. Almost the same rule and dividing by 3. Add up all the digits in the number.
2. Find out what the sum is. If the sum is divisible by 9, so is the number.
3. For example: 43785 (4+3+7+8+5=27) 27 is divisible by 9, therefore 43785 is too!