

OBERLIN HIGH SCHOOL
MATHEMATICS DEPARTMENT
GRADE: 7
NUMBER THEORY NOTES
OCTOBER 12 -16, 2020

The Use Of Numbers In Our Daily Lives

Numbers play an important role in our lives. Almost all the things we do involve numbers and Mathematics. Whether we like it or not, our life revolves in numbers since the day we were born.

There are numerous numbers directly or indirectly connected to our lives.

The following are some uses of numbers in our daily life:

1. Calling a member of a family or a friend using mobile phone.
2. Calculating your daily budget for your food, transportation, and other expenses.
3. Cooking, or anything that involves the idea of proportion and percentage.
4. Weighing fruits, vegetables, meat, chicken, and others in market.
5. Using elevators to go places or floors in the building.
6. Looking at the price of discounted items in a shopping mall.
7. Looking for the number of people who liked your post on Facebook.
8. Switching the channels of your favorite TV shows.
9. Telling time you spent on work or school.
10. Computing the interest you gained on your business.

Numbers, Numerals and Digits

Number



A **number** is a count or measurement that is really an **idea** in our minds.

We write or talk about numbers using **numerals** such as "5" or "five".

But we could also hold up 5 fingers, or tap the table 5 times.

These are all different ways of referring to the same number.

There are also special numbers (like [Pi](#)) that, even though we don't know them exactly, are still perfectly acceptable numbers because we know the **idea** behind them

Numeral

A numeral is a **symbol or name** that stands for a number.

Examples: **3**, **49** and **twelve** are all numerals.

So the **number is an idea**, the **numeral is how we write it**.

Digit

A digit is a **single symbol** used to make numerals.

0, 1, 2, 3, 4, 5, 6, 7, 8 and **9** are the ten digits we use in everyday numbers.



Example: the numeral 153 is made up of 3 digits ("1", "5" and "3").

Example: the numeral 9 is made up of 1 digit ("9"). So a single digit can also be a numeral

Digits -> Numerals -> Numbers

So digits make up numerals, and numerals stand for an **idea** of a number.



Just like letters make up words, and words stand for an idea of the thing



Number Instead of Numeral

But often people (including myself) say "Number" when they really should say "Numeral" ... it doesn't really matter if you do that, because other people understand you.

But try to use "digit" only when talking about the single symbols that make up numerals, OK?

Oberlin High School
Mathematics Department
Grade 7 Number Theory Activity for the Week of October 20 - 25, 2020

Student Name: _____

Teacher: _____

Class: _____

Date Submitted: _____

General Instructions

- a) Answer all questions.
- b) Take a picture of your work and email to Oberlin.math@gmail.com to be graded.

1) Using the digits 0, 1, 2, 5, 6, 7 and 9:

a) Write a seven (7) digit numeral.

b) What is the largest 7 digit number you can make with the digits?

c) What is the smallest 7 digit number you can make?

d) What is largest multiple of 50 you can make?

e) What is the smallest even number you can make?

f) What is the closest number to 8 million you can make?

_____ (6 marks)

2. Draw two pictures showing numbers being used in our daily lives. Briefly explain each drawing.
(6 marks)

