

# Polite and Rude Numbers



Polite Numbers are made by adding two or more consecutive numbers.

$$1 + 2 + 3 = 6. \quad 6 \text{ is a Polite Number.}$$

Numbers that are not Polite are Rude!

- A). Copy and fill in the table below for **two** consecutive numbers. Find all the Polite Numbers up to **40**.

Consecutive numbers	Polite Number
1 + 2	3
2 + 3	5
3 + 4	

Is there a pattern?



- B). Copy and fill in the table below for **three** consecutive numbers. Find all the Polite Numbers up to **40**.

Consecutive numbers	Polite Number
1 + 2 + 3	6
2 + 3 + 4	9
3 + 4 + 5	

What is the pattern?

- C). Copy and fill in the table below for **four** consecutive numbers. Find all the Polite Numbers up to **40**.

Consecutive numbers	Polite Number
1 + 2 + 3 + 4	10
2 + 3 + 4 + 5	14
3 + 4 + 5 + 6	

Is there a pattern?



- D). Draw similar tables for five and six consecutive numbers.

- E). Polite Numbers can be made up in more than one way.
- i). Which numbers up to 40 can only be formed in one way?
  - ii). Which numbers up to 40 can be formed in two ways?
  - iii). Which numbers up to 40 can be formed in three ways?
  - iv). What are the first 6 **Rude** Numbers?
  - v). What pattern do you notice with these Rude Numbers?

