

## KEY CONCEPTS:

In class today, we got started on a project to detect prime numbers. To recap, a prime number is a whole number greater than 1 whose only factors are 1 and itself.

## PROBLEM

To determine if a provided number is prime.

## ALGORITHM

A possible solution is to check if the number is divisible by any number 2, 3, ..., n-1. There are other optimizations that can be applied, but this solution is sufficient. e.g. we can test to only square root of n

## SOLUTION

A code template has been provided at:

<https://colab.research.google.com/drive/1gHKxmB8xpsC-w7EiK2uvBV056SgbR8mB?usp=sharing>

You can also copy and paste, please pay attention to the indentations:

```
##  
  
# Ask the user for a number using int() and input() to get a number  
  
n =  
print("You entered ", n)  
  
# Hint 1: The numbers we need to check for are in range(2, n-1)  
  
for i in range(2, n-1):  
    # check if n is divisible by i. We can use the modulo operator %  
    if  
        #print that the number is not prime,  
  
        break; # this causes us to exit the for loop  
else:  
    # print that the number is prime
```