



# Measures of Central Tendency: Mean, Median, and Mode

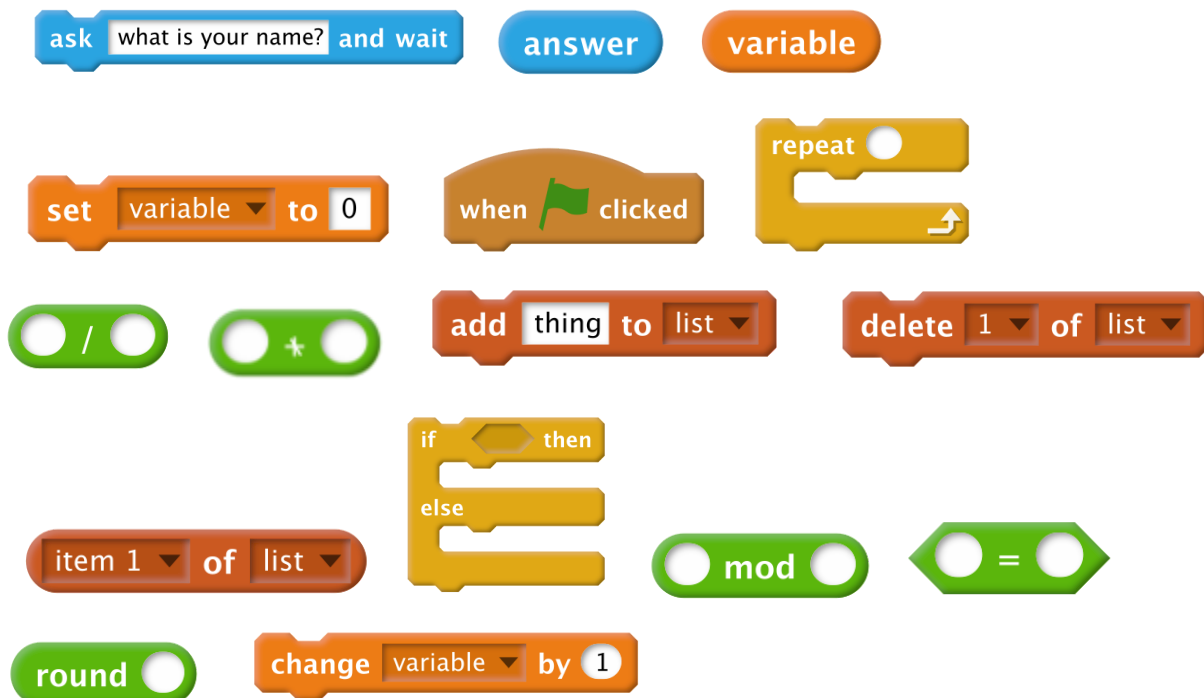
## Project Goal:

Given a data set, this program should calculate the mean, median, and mode of the data.

## Standard: CCSS.MATH.CONTENT.6.SP.B.5.C

Giving quantitative measures of center (median and/or mean) and variability (interquartile range and/or mean absolute deviation), as well as describing any overall pattern and any striking deviations from the overall pattern with reference to the context in which the data were gathered.

## Blocks:





**Student Handout:** [Measures of Central Tendency Student Guide](#)

**Teacher Guide:** [Step-by-Step Teacher Guide](#)

**Solution:**

Part 1: Mean

```
when green flag clicked
  delete all of Data
  set Mean to ?
  set Sum to 0
  ask How many numbers are in the set? and wait
  set Total to answer
  repeat Total
    ask Please enter a number and wait
    add answer to Data
    set Sum to Sum + answer
  set Mean to Sum / Total
```





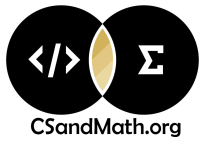
### Part 2: Median

```
when clicked
  set Median to ?
  delete all of Data
  ask How many numbers are in the set and wait
  set Total to answer
  repeat Total
    ask Please enter a number. Enter your numbers from smallest to greatest and wait
    add answer to Data
  if Total mod 2 = 0 then
    set Median to Item Total / 2 of Data + Item Total / 2 + 1 of Data / 2
  else
    set Median to Item round Total / 2 of Data
```





@mraspinall



### Part 3: Mode

```
when clicked
  delete all of Data
  set Mode to ?
  ask How many numbers are in the set? and wait
  set Total to answer
  repeat Total
    ask Please enter a number. and wait
    add answer to Data
  set Temp to 0
  set x to 0
```

```
repeat Total
  set y to 0
  set count to 0
  repeat Total
    if Item x of Data = Item y of Data then
      change count by 1
      change y by 1
    if count > Temp then
      set Mode to Item x of Data
      set Temp to count
  change x by 1
```

# #CSandMath



@BoundsofoutMath & @ashleyanntewes