What is a String?

- Basically, a sequence of characters
- Character?
  - Letter
  - Or number
  - Or even blank space
Everything Counts

Each character has a position

H I M O M
1 2 3 4 5 6
What is a String?

- Anything can be interpreted as a string regardless of format.
- In an expression (formula) string must be inside double quotes!
  - “this is a string” and this is not a string.
  - Remember to beware cut and paste.
We’ve already used strings

- =IFERROR(A1,"Not Found")

- Now we’re going to learn to manipulate them
A Few Simple Functions

- TRIM: eliminate extra blank space
- CLEAN: eliminate non-printing blanks
- UPPER: force to upper case
- LOWER: force to lower case
Trim

- Remember “a  ” and “a” aren’t the same
- Trim gets rid of:
  - leading blanks
  - trailing blanks
  - extra blanks in middle
- “      a     ” becomes “a”
- **Very** useful when determining if strings equal
- Or just eliminating extra whitespace
Clean

- Does the same thing for non-printable characters
- Need to use it when you get data from the web
- Spaces are printable characters co CLEAN does not remove them
- NEED TO USE BOTH
- ORDER DOESN’T MATTER
Converting

- **UPPER** – Changes to UPPERCASE
  - “cookie” becomes “COOKIE”

- **lower** – Changes to lowercase
  - “SHouT” becomes “shout”

- Useful for clean up

- Not needed for comparing strings:
  Excel = is case insensitive
Length: LEN

- Finds the length of a String
- One of the most important functions

Relationship between length and position?