```
start → ask user for a number → is it a real number?
                  ↑ no (loop back)
```

start

ask user for a number

is it a real number?

Not in spec. Stick to the plan!

for each number 1-10 multiply user number

break this out into steps like a while loop

was the number multiplied by 10?

display the newly multiplied user number

output

end

```
                            ( start )
                                │
                                ▼
                    ┌───────────────────────┐
                    │ ask the user for a     │
                    │ password               │
                    └───────────────────────┘
                                │
                                ▼
                          ╱ is the length  ╲──────────────────┐
                          ╲ at least 8?    ╱                   │   Where are your error messages?
                                │                              │   Stick to the spec!
                              yes│                             │
                                ▼                        no    │
                    ┌───────────────────┐                      │
                    │ add 1 to strength │                      │
                    └───────────────────┘                      │
                                │                              │
                                ▼                              │
                          ╱ does the string ╲◄─────────────────┤
                          ╲ contain an       ╱                 │
                          ╲ uppercase?      ╱                  │
                                │                              │
                              yes│                             │
                                ▼                        no    │
                    ┌───────────────────┐                      │
                    │ add 1 to strength │                      │
                    └───────────────────┘                      │
                                │                              │
                                ▼                              │
                          ╱ does it contain ╲◄─────────────────┤
                          ╲ a number?       ╱                  │
                                │                              │
                              yes│                             │
                                ▼                        no    │
                    ┌───────────────────┐                      │
                    │ add 1 to strength │                      │
                    └───────────────────┘                      │
                                │                              │
                                ▼                              │
                          ╱ contains a      ╲◄─────────────────┤
                          ╲ special          ╱                 │
                          ╲ character?      ╱            no     │
                                │                              │
                              yes│                             │
                                ▼                              │
                    ┌───────────────────┐◄─────────────────────┘
                    │ calculate score   │
                    └───────────────────┘
```

combine these

```
   ╱strength╲   ╱strength╲   ╱strength╲   ╱strength╲   ╱strength╲
   ╲= 1?    ╱   ╲=2 ?    ╱   ╲= 3?    ╱   ╲= 4?    ╱   ╲= 5?    ╱
       │           │           │           │           │
       ▼           ▼           ▼           ▼           ▼
  ╱unaccept╲   ╱cringe╲    ╱beta ╲     ╱Sigma╲     ╱alpha╲
  ╲able    ╱   ╲      ╱    ╲     ╱     ╲     ╱     ╲     ╱
       │           │           │           │           │
       └───────────┴───────────┼───────────┴───────────┘
                                ▼
                            ( end )
```

```
                    ┌──────────┐
                    │  start   │
                    └────┬─────┘
                         │
                   ┌─────▼──────┐
                  /  open a csv  /
                 /  file the user/
                /  gives and    /
               /  store it to a /
              /  list          /
              └──────┬─────────┘
                     │
            ┌────────▼─────────┐
            │ convert todays   │
            │ date to epoch    │
            │ time             │
            └────────┬─────────┘
                     │
            ┌────────▼─────────┐
            │ peopleCounted = 0│        done   ┌──────────────┐        ┌─────────────┐      ┌──────┐
            └────────┬─────────┘      ◄─────── │ calculate the│        / display the /      │ end  │
                     │                          │ average age  │───────/ how many    /──────└──────┘
            ┌────────▼─────────┐                │ of people in │       / people there/
            │ ageValue = 0     │     ◇          │ the list     │      / are in the  /
            └──────────────────┘    / \         └──────────────┘     / list and     /
                                   /   \                            / their age    /
                             ◄────/ for  \────►
                                  \ each  /
                                   \person/
                                    \in  /
                                     \ /
                                  label ◯
                                     │
                          ┌──────────▼──────┐      ┌──────────────┐
                          │ convert their   │      │ peopleCounted++│
                          │ birthday to     │      └──────▲───────┘
                          │ epoch time      │             │
                          └────────┬────────┘             │
                                   │                       │
                          ┌────────▼────────┐      ┌───────┴──────┐
                          │ calculate age   │─────►│ ageValue+= age│
                          └─────────────────┘      └──────────────┘
```

start

get a list of gpa letters and credit value

calculate the averages

for each data pair calculate the grade points

output users GPA

end

Needs completely redone