## /Write algorithm for Lab1 here.

## Remember to follow the rules of what makes a good algorithm from Notes #2.

Algorithm

Algorithm Operation Procedure

I. User input

* 1. User should be prompted to input two values:

1. What is the hill type?

ii. What is the skiers speed at the end of the jump in km/h?

II. Set constants

* 1. Coder should set constants (Height, Pointer per meter, points per Par) for two different hill type using ‘’if’’ statements
     1. If hill type = “Normal”
        1. Height = 46
        2. Points = 2
        3. Par = 90
     2. If hill type = “Large”
        1. Height = 70
        2. Points = 1.8
        3. Par = 120

III. Distance Calculations

1. Code should run a “time in air” and a “distance” calculation based on the users answers to the “if” statements

i. Time in air calculation: sqrt((2\*height)/9.8)

ii. Assign calculation to value ‘time\_in\_air’

iii. Distance calculation: jumper’s speed \* time in the air

IV. Points Calculations

a. Code should run a points calculation based on distance traveled

i. Points calculator: 60 + (distance - par)\*points\_per\_meter

ii. Assign calculation to value ‘points’

V. Output

a. Code should output “Congrats on doing better than par” value if total\_points >= 61

b. Code should output “What happened??” value if total\_points < 10

i. Otherwise code should output a “Wow you didn’t go so far” value

**Flowchart:**

A diagram of a graph

Description automatically generated