## Write algorithm for Lab1 here.

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

Algorithm

Problem

 The algorithm calculates a ski jumper's performance based on the type of hill and their speed. It determines how far the jumper traveled, how many points they scored, and provides feedback on their performance. The problem it solves is assessing whether the jumper performed better or worse than the par distance for a specific hill type.

Ask user to input hill type

Ask user Input speed

Height = 0

Points per meter = 0

Par = 0

1. You need to set constants
2. There are 3 constants (Height, , Points per meter, and par). These three constants can give you 2 different hill types using if statements.
3. If hill\_type =”Normal”
4. Height = 46
5. Points per meter = 2
6. Par = 90
7. If hilltype = “Large”
8. Height = 70
9. Points per meter = 1.8
10. Par = 120

1. User input
2. User is prompted to input
3. Is it a “normal” or “large” hilltype
4. What is the speed of the jumper

1. Distance calculation, time in air calculation, points calculation
2. is based off of the user input gotten in previous section
3. Time in air is calculated by sqrt((2\*height)/9.8)
4. Distance travled is calculated by jumper’s speed \* time in the air
5. 60 + (distance - par)\*points\_per\_meter

1. Output
2. Program is going to give a response based on if statements
3. Display distance
4. Display Points
5. If(points >=61):

display (“Great job for doing better than par!”)

1. If(points <= 10)

Display What happened?? Or Sorry you didn’t go very far

A diagram of a flowchart

Description automatically generated