Problem 1 (Computational Thinking)

Decomposition means dividing things into less challenging problems to solve. An example could be furnishing a new home. There's a lot of space with a lot of things to design, but you could break this down by designing each room or going by furniture, like getting all the beds for each room or doing all the house paint or wallpaper.

Pattern recognition means to notice alike things amongst problems. An example could be spelling. We learn how to spell certain words and based off those words we learn new words. For example, I can figure out how to spell '*together*' because I recognize the words '*to'*, '*get'* and '*her*', therefore I know how to spell '*together*'.

Abstraction means eliminating unimportant details. An example could be electronic devices. A lot of people don't know the inter-working of computers or their phones but they know how to use them and that's all they need to know to use them.

Algorithm design means to produce a finite, ordered set of unambiguous instructions. The example that first popped into my mind is driving. I drive and when I'm using the GPS or getting directions we are using algorithm design. The instructions to get from one place to another have to be:

1. Finite: meaning it doesn't go on forever, which it doesn't because eventually, you will get to your destination
2. Ordered: meaning it's in a specific order which driving instructions must be
3. Unambiguous: meaning there are no multiple meanings which there isn't. For example, turning left at the next intersection can only mean one thing. If driving instructions are ambiguous the driver won't know where to go, so it has to have a clear meaning.

Problem 2 (Flowchart)
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Problem 3 (Guessing Game Pseudocode)

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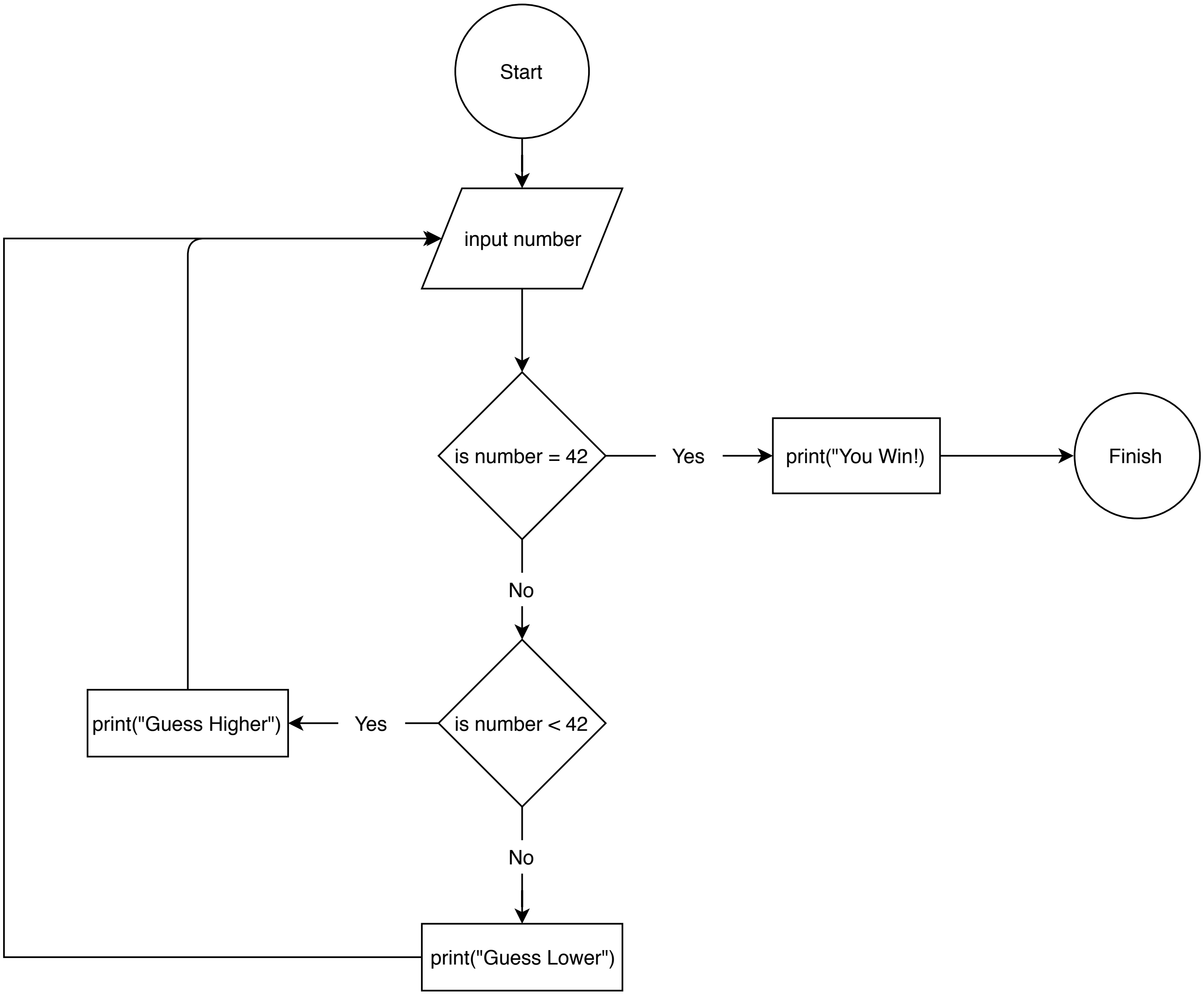
1. Repeat until number 42 is guessed
2. Number = int(input("Guess a number"))
3. If number == 42:
       a. print("You Win!")
4. Elif number > 42:
       a. print("Guess Lower")
5. Else:
       a. print("Guess Higher")
```


Start
input number
is number = 42
Yes
print("You Win!)
Finish
No
is number < 42
Yes
print("Guess Higher")
No
print("Guess Lower")