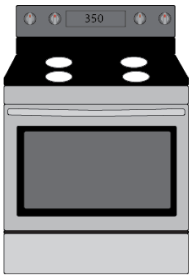


Now let us look under the hood and see how the cake machine works.

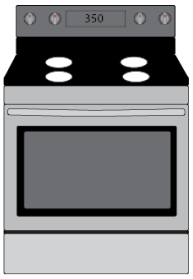
```
1| def make_cakes (number):
2|       while number > 0:
3|             print(“creating” + str(number) + “cake(s)”)
4|             number = number - 1
```

I know this looks confusing, but hang with me for a second and I will explain this step by step.

This is the code snippet that the cake machine uses to determine how many times to create those delicious cakes.

Line number 1 of the code takes in a variable which would be the number we type into the machine. Like we stated in the variable exercise, variables are able to change just like the number of cakes we want created can change. I.e. We might want 2 cakes for one bakery order and 10 for another.

Line number 2 of the code checks to make sure that the number of cakes is greater than the number zero. Remember that we can’t create zero cakes 🤪.



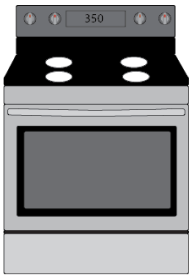
Line number 3 displays how many cakes left still need to be made. I.e. “creating 10 cake(s)”.

Line number 4 decreases the number of cakes that need to be created by 1. This is because everytime the machine runs it needs to keep track of how many cakes it needs to make so it decreases the number every time a cake is made. I.e. If I type in 1 into the cake machine this piece of code will decrease the number to 0 after a cake is made, therefore no more cake(s) need to be made

Do not worry if you did not understand everything on the first go. We will be doing some more practice to help you get the hang of how loops work.

1.) If I input the number 50 into the cake machine how many times will the machine give me a message (display how many cake(s) I need to make)?

a.) 10 times b.) 25 times c.) 50 times



2.) If the while loop was not there (remove line 2) and I placed the number 10 into the cake machine how many times will the machine give a message?

a.) 0 times b.) 1 time c.) 10 times

3.) If I remove (number = number - 1) line number 4 and enter a number (any number) into the cake machine how many messages will I get?

a.) infinity times b.) 25 times c.) 0 times