1. Code a square using a while-loop: (BONUS if you make a triangle, hexagon, or octagon instead of a square)
2. What line of code do I need if I wanted to color my shape to these specific RGB values 50, 185, and 200. (BONUS what color do you think this is?)
3. Finish the rest of the code. You will create an **if-else statement** with the following conditions

* If the age is **greater than** 70, print “you are old.”
* If the age is **greater than or equal to** 30 and is **less than or equal to** 70, print “you are middle aged.”
* If the age is **greater than or equal to** 0 and is **less than** 30, print “you are young.”
* Otherwise, print “Error, you entered a negative age.”

age = int(input("Enter your age: ")) #gets user input from keyboard

5) What does this program do?

**for** k **in** range(50, 100):  
 **if** k % 2 == 0:  
 print(k)

6) What number does this program print out?

k = 0  
**for** i **in** range(3):  
 k = k + 5

print(k)

A close up of a clock

Description automatically generated6) Using the truth table to the right, what is:

|  |  |  |
| --- | --- | --- |
| 101011001  AND 101101101 | 101011001  OR\_ 101101101 | 101011001  XOR \_ 101101101 |

7) What is 87 in binary?

8) What will be printed out once the function is done executing?

**def** newString(x, y):  
 new = **''  
 for** i **in** range(3):  
 new = new + x + y  
 **return** new  
  
oldString1 = **"Hello"**oldString2 = **"Bye"**print(newString(oldString1,oldString2))

9) Create a function called duplicateString with two parameters. One parameter is for a string, the other is for a number. This function will duplicate a string into a new string according the number sent to the function.

**For example:** duplicateString(**"Hello"**,6) **will print out** “HelloHelloHelloHelloHelloHello”

(BONUS: make the function return the length of the new string)

10) How would I randomly generate an RGB color using the **color()** function.