

ENGR 101 - WEEK 4 - STUDY QUESTIONS

Q1- You are a turtle in swampy world (name your turtle with your actual name please). And you like to play football. Before every match, you run around the field. You can decide to run fast or slow(Hint: Turtle.set_delay(yourname, 0.1)). Write a function to help your turtle run around the field. Generalize your program so you can change your speed and number of laps.

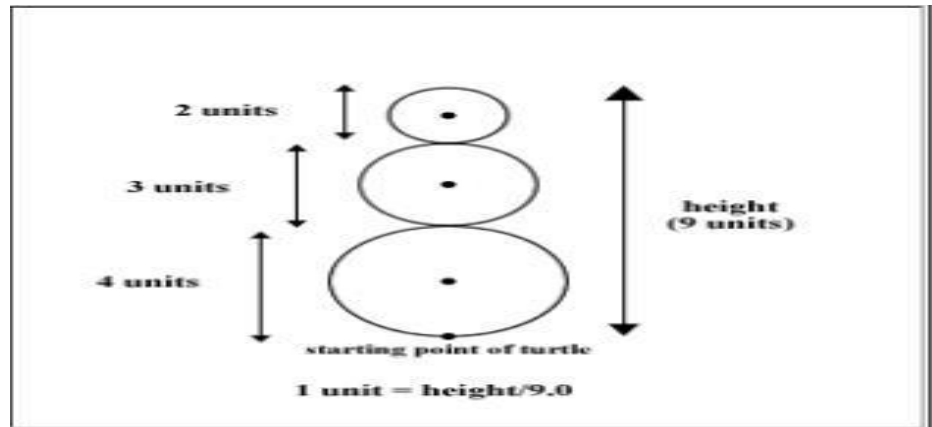


Q2- Write a function which writes your names first 3 letter.



Q3- Create a function, which counts and prints down from given number (as an input) to 0.
Then it counts and prints from zero to given number

Q4- Assume that you have a turtle function called **drawCircle(t,r)** that takes a turtle and the radius of a circle, and draws a circle. Assume that if the turtle starts out facing east, he will finish facing east, seated at the very bottom of the circle. Using that function, create a function **drawSnowman(t,h)**, where h is the height of the snowman. The snowman should be structured exactly according to the following diagram. Be sure the turtle starts and finishes, facing east, at the bottom of the snowman (at the point indicated in the diagram below.)



Q5- The function below finds the summation of all numbers between 0 and 10. Try to figure out the errors.

```
def summation():
    for i in range(9):
        sum=0
        sum +=1
    print sum
```

Q6- Write a function **print_even()** that takes two even numbers as input and prints the all even numbers between these numbers. (Note: Use for loop and in order to prevent getting error, your first number should be smaller than second one)

For example:

```
print_even(12,18)
```

```
14
```

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16
```

Q7- What is the output of the following operations?

```
a = 4
b = 6
c = 4
print(a = 2)
print(b > 2)
print(a >= c)
print(a > b)
print(b < a)
print(a = b)
print(a <= c)
print(a != b)
print(a =< c)
```

Q8- Write a function that takes a negative number and prints all the negative numbers from 0 until that number.

For example:
negatives(-10)

The answer should be:

```
0
-1
-2
-3
-4
-5
-6
-7
-8
-9
-10
```

Q9- Write a function that prints the following when called.

```
10
20
30
40
50
60
70
80
90
100
```

Q10- Write a function that takes 2 numbers and prints from the smaller number till the bigger one. You may use max(), min() built in functions. Hint: use for loop.

For example: if the input is func(1,6)

The output should be:

```
1
2
3
4
5
6
```

Q11- what is the output of the following code?

```
for i in range(-1, -10, 1):
    print(i)
```

Q12- Is there a way to fix this code? What does it output?

```
a == 2  
for i in range(a):  
    print(a = 2)
```

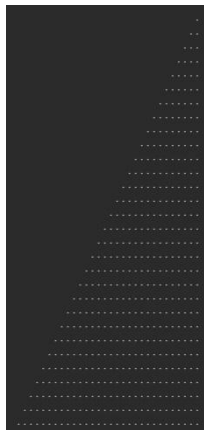
Q13- Create a function which draws the figure below.

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Q14- Create a function which draws the figure below.



Q15- Create a function which draws the figure below.



Q16- Create a function which draws the figure below several times.(right figure is a large scale of the first figures repeated one.)

