

Operators Exercises

1. Declare your age as integer variable
2. Declare your height as a float variable
3. Declare a variable that store a complex number
4. Write a script that prompts the user to enter base and height of the triangle and calculate an area of this triangle ($\text{area} = 0.5 \times b \times h$).

Enter base: 20

Enter height: 10

The area of the triangle is 100

5. Write a script that prompts the user to enter side a, side b, and side c of the triangle. Calculate the perimeter of the triangle ($\text{perimeter} = a + b + c$).

Enter side a: 5

Enter side b: 4

Enter side c: 3

The perimeter of the triangle is 12

6. Get length and width of a rectangle using prompt. Calculate its area ($\text{area} = \text{length} \times \text{width}$) and perimeter ($\text{perimeter} = 2 \times (\text{length} + \text{width})$)
7. Get radius of a circle using prompt. Calculate the area ($\text{area} = \pi \times r \times r$) and circumference ($c = 2 \times \pi \times r$) where $\pi = 3.14$.
8. Calculate the slope, x-intercept and y-intercept of $y = 2x - 2$
9. Slope is ($m = \frac{y_2 - y_1}{x_2 - x_1}$). Find the slope and Euclidean distance between point (2, 2) and point (6,10)

- 10). Compare the slopes in tasks 8 and 9.
- 11). Calculate the value of y ($y = x^2 + 6x + 9$). Try to use different x values and figure out at what x value y is going to be 0.
- 12). Find the length of 'python' and 'dragon' and make a falsy comparison statement.
- 13). Use *and* operator to check if 'on' is found in both 'python' and 'dragon'
- 14). *I hope this course is not full of jargon.* Use *in* operator to check if *jargon* is in the sentence.
- 15). There is no 'on' in both dragon and python
- 16). Find the length of the text *python* and convert the value to float and convert it to string
- 17). Even numbers are divisible by 2 and the remainder is zero. How do you check if a number is even or not using python?
- 18). Check if the floor division of 7 by 3 is equal to the int converted value of 2.7.
- 19). Check if type of '10' is equal to type of 10
- 20). Check if int ('9.8') is equal to 10
- 21). Write a script that prompts the user to enter hours and rate per hour. Calculate pay of the person?

Enter hours: 40

Enter rate per hour: 28

Your weekly earning is 1120

- 23). Write a script that prompts the user to enter number of years. Calculate the number of seconds a person can live. Assume a person can live hundred years

Enter number of years you have lived: 100

You have lived for 3153600000 seconds.

24). Write a Python script that displays the following table

1 1 1 1 1

2 1 2 4 8

3 1 3 9 27

4 1 4 16 64

5 1 5 25 125