

PRACTICE-02_SCAN-PRINT

The Missing Text (p1v1d1)

I want to print the following statement

India has 29 states and 7 union territories

However, the code shown here is not producing the complete sentence. Moreover, compilation generates a warning. Fix the code so that the statement above is generated properly.

All Test Cases (Visible + Hidden)

Input	Output
	India has 29 states and 7 union territories
	India has 29 states and 7 union territories

ASCII Art (p1v2d1)

Write code to generate the following design. Such creations are often called "ASCII art". Search for them online to learn more.

We can reveal that only space, pipe, underscore, backslash and forward slash characters were used to create this (i.e. no tab characters were used). We can also reveal that there are 2 spaces between the vertical lines of the first two "I" characters and there are 4 spaces between the vertical lines of the "I" and "T" characters as well as 4 spaces between the vertical lines of the "T" and "K" characters.

```
  _  
| | | /  
| | | \  
| | |
```

All Test Cases (Visible + Hidden)

Input	Output
	<pre> _ / \ </pre>
	<pre> _ / \ </pre>

The Impossible Swap (p1v3d1)

I have two variables $a = 3$ and $b = 7$ as shown. I want to swap the values of these two variables i.e. I want the variable a to contain the value 7 and the variable b to contain the value 3. According to what I was taught, I wrote the following code. But the result is not what I expected. What is happening here? Can you help me write code to swap these numbers properly?

Hint: Use the third variable c to implement the swap.

Request: Please do not cheat by directly modifying the `printf` statement to print the desired values.

All Test Cases (Visible + Hidden)

Input	Output
	$a = 7, b = 3$
	$a = 7, b = 3$

Area under a curve (p1v4d1)

The following code tries to find the area under the curve $y = 2x^2 + 4x + 9$ between $x = 0$ and $x = 3$ and prints the answer. The answer is an integer since it is week 1 of the course :) However, the code is not working properly, as you can check yourself. What is going wrong? Can you correct the code for me?

All Test Cases (Visible + Hidden)

Input	Output
	The area under the curve is 63
	The area under the curve is 63