

Problem 2: Rock, Paper, Scissors

 [courses.edx.org/courses/course-](https://courses.edx.org/courses/course-v1:HarveyMuddX+CS005x+2T2016/courseware/28a22dfe1aae4c939c1072aac3466c2c/c870bfc9bf24441d9313b416c09c0865/)

[v1:HarveyMuddX+CS005x+2T2016/courseware/28a22dfe1aae4c939c1072aac3466c2c/c870bfc9bf24441d9313b416c09c0865/](https://courses.edx.org/courses/course-v1:HarveyMuddX+CS005x+2T2016/courseware/28a22dfe1aae4c939c1072aac3466c2c/c870bfc9bf24441d9313b416c09c0865/)

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Week 1: Introduction to Computation > Homework 1 > Problem 2: Rock, Paper, Scissors

Problem 2: Rochambeau

An *honesty-optional* rock, paper, scissors program

This second problem asks you to practice:

- creating new Python files (in this case, by copying old ones or starting with the code below)

```
# Name:
# Date:
#
#

import random

user = raw_input("Choose your weapon: ")
comp = random.choice( ['rock', 'paper', 'scissors']
)

print 'the user (you) chose', user
print 'the comp (I) chose', comp

if user == 'rock':
    print 'Ha! I really chose paper -- I WIN!'
```

- writing a bit of your own code (by altering another program, if you wish)
- handling text-based input and output in Python

Use what you've learned from the lecture content and code from the first two parts of this homework to create a program that:

- Lets the user choose from among these three options: `rock`, `paper`, and `scissors`
- Works differently for each of these inputs
- Prints the choice the user made
- Reveals the choice that the program makes (whether fair or not)
- Prints out who won that round (or whether it was a tie, or some other outcome...)

Important Notes:

- You may assume the user will type her/his choice correctly

- Your program may play an honest game of RPS, but you're also welcome to create a player that always wins (or, if you prefer, that always loses).

You are welcome to add side comments to make your game more entertaining to play! You can find other ideas for additions to your game in the last page of this assignment, "Extra Challenges".

When you're finished, submit your code at the bottom of this page.

Creating a New file in trinket.io

The easiest way to create a new file in trinket.io is to go to trinket.io/home and press the large, blue "New Trinket" button in the upper right corner of the window. (You may need to log in to see this page. If you still don't have a trinket account, sign up for one now!)

Alternately, you can press the "+" button in a trinket that already exists to create a copy of another trinket. But be careful! In general, you'll have to delete all of the code in the trinket if you want to use this method.

How the Program Should Work

- The program should ask the user to choose rock, paper, or scissors. Then, it should repeat back to the user their choice, "reveal" its own choice, and report the results. See below for two possible example runs. The program can play fairly, can always win, or can always lose—it's up to you. The example below shows how it can always win! Briefly, in the game of [rock-paper-scissors](#), rock defeats scissors, scissors defeat paper, and paper defeats rock.
- You may assume that the user will input one of `rock`, `paper`, or `scissors`. Case matters! We'll stick with lower case.
- You may write the dialog however you like—below is an example dialog if you'd like one to follow. We are **positive** that you can improve on this interaction, however! Here are two distinct runs of the program:

```
Choose your weapon: rock
the user (you) chose rock
the comp (I) chose paper
Ha! I really chose paper -- I
WIN!
```

```
Choose your weapon: paper
the user (you) chose paper
the comp (I) chose dynamite
I REALLY WIN!
```

Submit Homework 1, Problem 2

25.0/25.0 points (graded)

To submit your Homework 1, Problem 2 code, you'll need to copy it from your trinket or code file and paste it into the box below. After you've pasted your code below, click the "Check" button.

IMPORTANT: Make sure that there aren't spaces at the beginning of your code, and that you copied all of the characters. If there are extra spaces or you are missing spaces, our server won't be able to run your code and we won't be able to give you any of the points you deserve for your hard work.

1

2

3

4

5

6

7

8

```
import random
```

9

10

```
user = raw_input("Choose your weapon:  
")
```

11

```
comp = random.choice( ['rock','paper','scissors']  
)
```

12

13

```
print 'the user (you) chose',  
user
```

14

```
print 'the comp (I) chose',  
comp
```

15

16

```
if user == 'rock':
```

17

```
    if comp ==  
'paper':
```

18

```
        print 'I  
win!'
```

19

```
    if comp ==  
'rock':
```

20

```
        print  
'Tie.'
```

21

```
    if comp ==  
'scissors':
```

22

```
        print 'You  
win!'
```

23

24

```
if user == 'paper':
```

25

```
    if comp ==  
'paper':
```

Press ESC then TAB or click outside of the code editor to exit
correct

correct

Test results

CORRECT [See full output](#)[See full output](#)

You have used 1 of 3 attempts Some problems have options such as save, reset, hints, or show answer. These options follow the Submit button.