Give us a hand, report bugs!

Note this is an unscored practice game!

theGames Coach Practice

Solutions cannot be submitted for coaches, please practice offline.

Challenges can be solved in any order, and you won't finish them all, so choose your challenges wisely! Open another tab to build and test your code, and when it works, come back here to submit the answers. Your team may also submit solutions from other browsers. To do so, simply head to the same game URL. If a student, they can also goto thegames.thecoderschool.com and enter this TEAM ID: 0

Time left: 44:42

1	Declare a variable and assign it to the circumference of a circle, and output the radius. A circle's radius is circumference divided by (2 * 3.14).	10pts
2	Output numbers 1 to 99, skip anything that is divisible by 8.	20pts
3	Declare a variable with the list [1,2,3,4,5]. Calculate then output the average of the list.	20pts
4	Declare a variable and assign it to 1.0. Then using a built in language function, output the type of the variable.	25pts
	The Fibonacci Sequence is the series of numbers: 0, 1, 1, 2, 3, 5, 8, 13, 21, 34, ...The next number is found by adding up the two numbers before it.	
5	Write a function with one parameter that calculates the Fibonacci sequence of the input recursively. Then call the function with argument 4, which should output the first 4 numbers of the sequence.	30pts
6	Declare a variable and assign it to any number, then programmatically output the leftmost digit of the number. Input 234 would output 2, while 9876 would output 9.	30pts
7	Declare a variable with a list of length 5 populated with integers. Then calculate the squares of the integers and output them as a list.	40pts

8	Declare a variable with a list of length 6. Use probability to populate the list with 0 50% of the time, and 1 50% of the time. Output the result.	40pts
9	Write a function with one parameter of type string. The function should take the string, and replace these words to make it more exaggerated: "good" is replaced by "great", "bad" is replaced by "terrible", "like" is replaced by "love", and "dislike" is replaced by "hate". Output the result. Call the function with the input: "Good days give happiness, bad days give experience, worst days give lessons, and the best days give memories."	50pts
10	Declare a variable and assign it to any positive number. Take the remainder of the number divided by 12, assume 0 is January, and 11 is December. Output which month of the year it is based on the result.	50pts
11	Declare a variable and assign it to a string. Put a comma in between each of the characters in the string, so "hello4" becomes "h,e,l,l,o,4". If there's already a comma in the string, you skip adding a comma for that character, so "h,ey" becomes "h,e,y". Output the result.	60pts

12	Declare a variable and assign it to a dictionary as shown (example in python, adjust to your language as needed):
	
	dict1 = {
	"one": 1,
	"two": 2,
	"three": 3
	}
	
	Convert them into lists(list1 and list2), where list1 contains the keys from dict1 and list2 contains the values from dict1. Output list1 and list2.
		60pts

13	Declare a variable and assign it to [1, 3, 3]. Output True if the list contains a 3 next to a 3 somewhere, otherwise False. [1, 3, 3] should output True while [1, 3, 1, 3] should output False.	70pts
14	Declare a variable and assign it to "mouserat". Output True if the string "mouse" and "rat" appear the same number of times in the string, otherwise False.	70pts

	"mouserat" should output True while "mouseratmouse" should output False.	

15	In Pascal's Triangle, each number is the sum of the two numbers above it. The numbers at the ends of each row are always 1.
	Make Pascal's triangle programmatically and output in this format:
	`1 1`
	`1 2 1`
	`1 3 3 1`
	`1 4 6 4 1`
	`1 5 10 10 5 1`
	`1 6 15 20 15 6 1`
		80pts

16	Declare a variable and assign it to 11111111. Then convert the number(in binary) to its decimal equivalent. You can not use a built in language function to solve this problem. The solution should work for any binary number from 0 to 11111111.	90pts
17	Implement radix sort and call it on a list of 10 numbers, sorting from smallest to largest. Output the sorted list.	100pts