

Python: Functions

1. Write a program that includes a function that multiplies two numbers together and returns the result.
2. Write a program that includes a function that appends two values to a list. The function should not return the list, but accept the list to be updated as an input parameter. The program should print the list after the function has been called.
3. Write a program that includes a function to simulate rolling several dice. The function should accept the number of dice to be rolled and the number of sides that are on the dice. The function should use the `random.randint` function from the `random` module and add the result from each die roll. The total result should be returned.
4. Write a program that includes a function that returns statements about the future. The function should include a list of text statements and use the `random` module to pick a statement at random and return it. The `random.randint` function should be used to pick an index from 0 to N , where N is the length of the list.
5. Write a program that includes a function that accepts a dictionary as an input parameter. The function should clear the dictionary and add three key and value pairs, which are colour names and integer values respectively.
6. Write a program that includes a function that converts text characters into numbers, according to a mapping that is given in a dictionary. For example, the key "a" could be mapped to the value 1. The function should accept a text string and return a text string of numbers. For example, "abz" could become "1|2|26". The function should accept a mapping dictionary as an input parameter. A `for` loop should be used to loop over the character in the input string.
7. Write a program that includes a function that converts the text string from the previous function back into alphabetic characters. For example, "1|2|26" should be returned as "abz". The function should accept a mapping dictionary as an input parameter, as well as the input string. The function `split("|")` should be used to split the text, before comparing it with the mapping dictionary. A `for` loop should be used to iterate over the strings returned by the `split` function.