Day 4 of Python Assignment Answers -
10. Write a Python program to convert kilometers to miles?

```python
""" Prompt the user to enter a distance in kilometers and store it
as a float"""
kilometers = float(input("Enter distance in kilometers: "))

# Define the conversion factor from kilometers to miles
km_in_miles = 0.621371

# Convert the distance in kilometers to miles by multiplying it by the conversion factor
miles = kilometers * km_in_miles

# Round the result to two decimal places using the built-in round() function
miles_rounded = round(miles, 2)

""" Print out the original distance in kilometers and the converted distance in miles,
rounded to two decimal places"""
print(f"{kilometers} kilometers is equal to {miles_rounded} miles")
```

This code prompts the user to input a distance in kilometers, converts it to a float, multiplies it by the conversion factor from kilometers to miles (0.621371), and then prints out the result in a formatted string with both the original distance in kilometers and the converted distance in miles.

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11. Write a Python Program to Check if a Number is Positive, Negative or Zero?

```python
def check_number(n):
    """
    This function takes a number as input and checks if it is positive, negative or zero.

    Args:
    n (int or float): The number to be checked

    Returns:
    str: A string indicating if the number is positive, negative or zero
    """

    if n > 0: # if the number is greater than 0
        return "Positive" # return 'Positive' as the number is positive
    elif n < 0: # if the number is less than 0
        return "Negative" # return 'Negative' as the number is negative
    else: # if the number is neither greater than nor less than 0, it must be 0
        return "Zero" # return 'Zero' as the number is 0

check_number(10)
check_number(-10)
check_number(0)
```

This function named check_number takes an input number n as an argument and checks whether the number is positive, negative, or zero.

First, the function checks if the number is greater than 0 using the > operator. If the number is greater than 0, it returns the string 'Positive' indicating that the number is positive.

If the number is not greater than 0, the function checks if the number is less than 0 using the < operator. If the number is less than 0, it returns the string 'Negative' indicating that the number is negative.

If the number is neither greater than nor less than 0, it means the number must be 0, and the function returns the string 'Zero' indicating that the number is zero.

Finally, the function returns the string indicating whether the number is positive, negative, or zero.

You can call this function and pass a number as an argument to check whether the number is positive, negative, or zero.

12. Write a Python Program to Check if a Number is Odd or Even?

```python
def check_odd_even(num):
    """
    This function takes a number as input and checks if it is odd or even.

    Args:
    num (int): The number to be checked

    Returns:
    str: A string indicating if the number is odd or even
    """

    if num % 2 == 0: # If the number is divisible by 2
        return "Even" # return 'Even' as the number is even
    else: # if the number is not divisible by 2
        return "Odd" # return 'Odd' as the number is odd

check_odd_even(10)

check_odd_even(7)
```

IIn this function, the % operator is used to check if the number is divisible by 2. If the remainder after dividing the number by 2 is 0, then the number is even, otherwise, it is odd.

You can call this function by passing a number as an argument and it will return a string indicating whether the number is odd or even