Python Classes Homework

Question 1

In your own words explain what object-oriented programming means.

Question 2

Write a simple class called Car with a name, color and age attribute. The class should have an initializer to set the name (str), color (str) and age (str) which is given (in that order) when a car object is created. The class should also have a method which increments the car's age. The following code below should work if you coded the class correctly.

car1 = car("Kia", "Red", "10")
car1.increase_age()
print(car1.age)   → This should print 11

Question 3

Write a class called Circle which only has a radius attribute. There should be an initializer for this class which of course sets the radius which is given by the user. Then write methods to return the area, diameter and circumference. You can name the three methods whatever you want, but ensure they are appropriate. Note: area = 3.14 * (radius ** 2), diameter = 2 * radius and circumference = 2 * 3.14 * radius.