Suppose there are 4 cars, A, B, C, and D.

1. D is chased by B
2. C is chased by A
3. B is chased by C
4. A is chased by D

Initial positions of A, B, C, and D are (10,0), (0,10), (10,10) and (0,0).

Velocities of A, B, C, and D are 3, 5, 7, and 2 m/s. Now Simulate this Chase Problem for t=20 unit time.

Required outputs:

1. Print the x and y coordinate value of each vehicle at every time step.
2. If the distance between any two vehicles is less than 5m then a car will shoot its target [not destroy]. Print all the shootings and finally print the number of times each car got shot during the simulation.
3. Draw the graph showing the path of each car.

Instructions:

1. **Code each problem in separate python files. (problem1.py, problem2.py etc.)**
2. **Create a folder. Rename it with your 9-digit student ID.**
3. **Put all your python files into the folder.**
4. **ZIP the folder and upload to LMS submission window.**
5. **Deadline: Friday 11:55 PM.**
6. **Do not copy! Copy checker will be used during evaluation. Negative marking is possible.**