Extra Credit 7

In the desert there is a jail. After rebellion the single guard has been immobilized. He watched helplessly how prisoners left one by one with different speed in different directions. Later he free himself and took a motorbike with extra seat. Now he can follow footprints and pick up one prisoner at a time and bring them back to jail. Each prisoner moves with constant individual speed v\_i and left the jail at time t\_i. In which order the guard should bring the prisoners back in order to minimize the time?

You’ll have to solve this with the greedy algorithm. At any given time, instant 't' measures the value d\_i\_t = v\_i \* (t - t\_i) for each of the prisoners. Choose the maximum value amongst these and go and catch that prisoner. For prisoners having the same value for d\_i\_t , go for the prisoner who has the higher speed, or else he will move more distance and the guard will take more time in catching that prisoner.