Problem Statement:

The Transformers are at war and you​ are in charge of settling the score! You’re to evaluate who wins a fight between the Autobots and the Decepticons. Here are the rules.

Each Transformer has the following criteria on their tech spec (see <http://www.ntfa.net/ntfa/techspecs/index.php?cat=Gen1&group=DeceptPZ&char=Predaking>

for an example):

● Strength

● Intelligence

● Speed

● Endurance

● Rank

● Courage

● Firepower

● Skill

All of these criteria are ranked from 1 to 10.

The “overall rating” of a Transformer is the following formula:

(Strength + Intelligence + Speed + Endurance + Firepower)

Each Transformer must either be an Autobot or a Deception.

Your program should take input that describes a group of Transformers and based on that group displays:

a. The number of battles

b. The winning team

c. The surviving members of the losing team

The basic rules of the battle are:

● The teams should be sorted by rank and faced off one on one against each other in order to determine a victor, the loser is eliminated

● A battle between opponents uses the following rules:

○ If any fighter is down 4 or more points of courage and 3 or more points of strength compared to their opponent, the opponent automatically wins the face-off regardless of overall rating (opponent has ran away)

○ Otherwise, if one of the fighters is 3 or more points of skill above their opponent, they win the fight regardless of overall rating

○ The winner is the Transformer with the highest overall rating

● In the event of a tie, both Transformers are considered destroyed

● Any Transformers who don’t have a fight are skipped (i.e. if it’s a team of 2 vs. a team of 1, there’s only going to be one battle)

● The team who eliminated the largest number of the opposing team is the winner

Special rules:

● Any Transformer named Optimus Prime or Predaking wins his fight automatically regardless of any other criteria

● In the event either of the above face each other (or a duplicate of each other), the game immediately ends with all competitors destroyed

For example, given the following input:

Soundwave, D, 8,9,2,6,7,5,6,10

Bluestreak, A, 6,6,7,9,5,2,9,7

Hubcap: A, 4,4,4,4,4,4,4,4

The output should be:

1 battle

Winning team (Decepticons): Soundwave

Survivors from the losing team (Autobots): Hubcap