

# Project CUET

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## Payout Problem:

Each year Selise has a table tennis tournament. Even number of teams plays in the tournament. Interested buyers buys these teams for a price. This money goes back to the players according to the following rules.

1. There will be even number of teams
2. 2 Groups will be formed with half of the teams.
3. There will be 3 rounds of games, group round, semifinal and final.
4. In group round teams will play with each other.
5. Top 2 team from each groups will qualify for semifinal.
6. 2 Semi Finalist will play final.

Each team will get payment according to the following scheme.

- team will pay 10% of their price as service charge to management committee.
- team will get 10% of REST of their price as match fee distributed among all matches until Semifinal.
- team will have possibility to get upto 50% of the REST of their price distributed among all matches until Semifinal. He will get the money only if he wins/draws a match.
- team will get 33% of the REST of their money if he wins the semi final.
- team will get 100% of the REST of their money if he wins the Final.

Bonus:

- At each match until Semi Final winning team will get the money of losing team assigned for that match.
- At semi final winning team will get the money of losing team assigned for that match. Additionally they will get 12.5% of all teams remaining payout who did not qualify for Semifinal.
- At final winning team will get the money of losing team assigned for that match. Additionally they will get 50% of all teams remaining payout who did not qualify for Semifinal.
- At final runner up team will get 25% of all teams remaining payout who did not qualify for Semifinal.

For example if all team price was 5000/- and 12 teams with 2 groups with a total of 60000/- was total team price. Suppose there are 5 matches before semifinal for each team.

Service Charge: 500/-

Match Fee Per Match before Semifinal: 90/-

if wins all matches before semi: 2025/-

if wins semi: 675/-

if wins final: 1350/-

Total of their own price: 4500/-

Bonus per team:

if wins all matches before semi: 2025/-

if wins semi: 5062/-

if runner up: 10125/-

if wins final: 20250/-

**Given The following information calculate payout for each team.**

Teams

Team Name	Price
Cool Eyes	14200
Deshi Boys	11800
Sohoj Sorol	9600
Dynastic	8300
Spark Circle	6500
Bahubali	6100
Direwolves	5800
Megamind	4900
NoaShal_Turbo	4900
Dabang	4700

<b>Group A</b>	<b>Group B</b>
Cool Eyes	Bahubali
Dabang	NoaShal_Turbo
Dynastic	Spark Circle
Deshi Boys	Megamind
Sohoj Sorol	Direwolves

#### Match Results

<b>Match No</b>	<b>Team 1</b>	<b>Team 2</b>	<b>Winner</b>
1	Sohoj Sorol	Cool Eyes	Sohoj Sorol
2	Bahubali	NoaShal_Turbo	Bahubali
3	Deshi Boys	Dabang	Deshi Boys
4	Dynastic	Dabang	Dynastic
5	Megamind	Direwolves	Megamind
6	NoaShal_Turbo	Spark Circle	NoaShal_Turbo
7	Deshi Boys	Sohoj Sorol	Deshi Boys
8	Cool Eyes	Dabang	Cool Eyes
9	Bahubali	Direwolves	Bahubali
10	Deshi Boys	Dynastic	Deshi Boys
11	Direwolves	NoaShal_Turbo	NoaShal_Turbo
12	Megamind	Spark Circle	Spark Circle
13	Sohoj Sorol	Dabang	Dabang
14	Bahubali	Megamind	Megamind
15	Dynastic	Cool Eyes	Dynastic
16	Bahubali	Spark Circle	Bahubali
17	Sohoj Sorol	Dynastic	Dynastic
18	Megamind	NoaShal_Turbo	Megamind
19	Deshi Boys	Cool Eyes	Cool Eyes
20	Spark Circle	Direwolves	Spark Circle
Semi-1	Bahubali	Dynastic	Dynastic
Semi-2	Deshi Boys	Megamind	Deshi Boys
Final	Deshi Boys	Dynastic	Dynastic

