

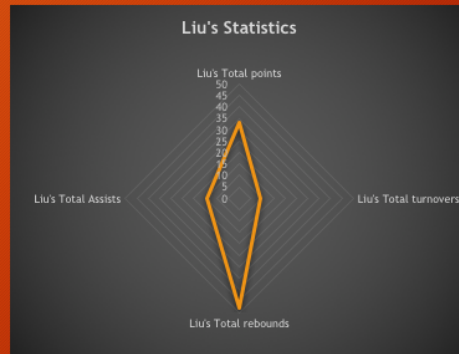
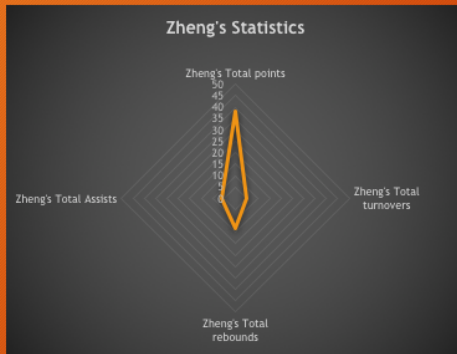
# 3X3 BASKETBALL GAMES' DATA STATISTICS & ANALYSIS

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## INTRODUCTION

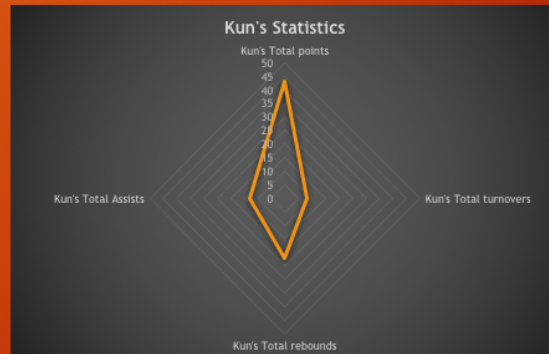
- In this project, I am going to make data summaries of several basketball games to find the most efficient score way for our team/ each player and also the weakness we have.
- I collected all the necessary data from 6 recorded videos of 3X3 basketball games. (We only had 6 games so that some conclusion might not be such convinced. The cardinality is too small)

## The Stats for each player (1)

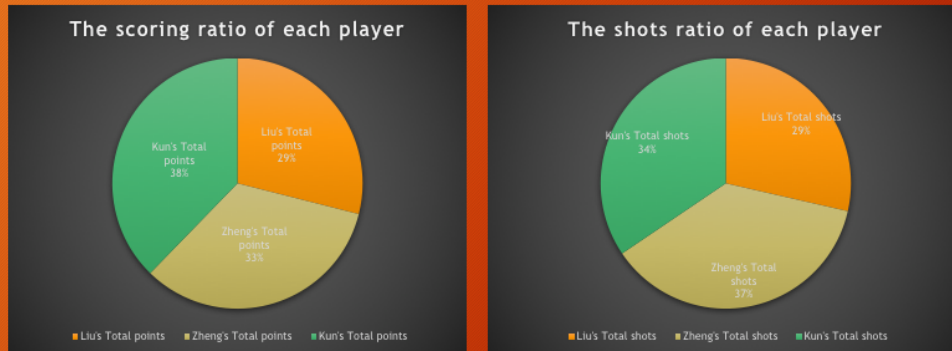


## The Stats for each player (2)

- The radar graph shows the total statistics with four edges for 6 games of each player. There are total points, total assists, total rebounds and total turnovers at each edge respectively.
- These radar graph could show each player's ability at some point but as I mentioned before, the cardinality is too small.



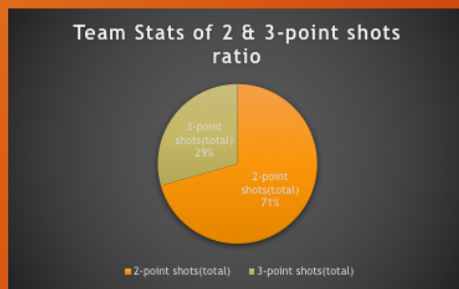
## The contribute for each player in scoring efficient



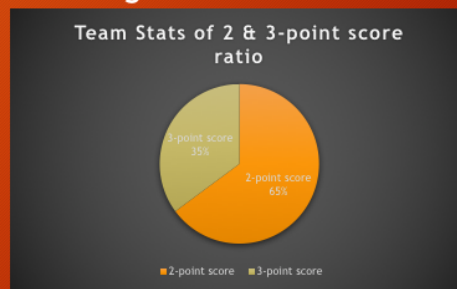
For the above graph, we could find that Kun's efficient is the highest one. He scored 38% of the total points by used only 34% times of total shots. Liu took 29% times of the total shots and contribute 29% points of the team. The last one is Zheng, his efficient is relatively low, he occupied 37% times of shots but only scored 33% of the total points.

## Team statistics

The ratio of different shots



The ratio of different shots scoring



These two pie charts show the ratio of different shots and different shots scoring respectively. As we can see, our team took 71% times of total 2-point shots and scored 65% of the total points. On the other hand, we only took 29% times of total 3-point shots and made 35% of the total points. This means our 3-point shot is a more efficient way of scoring the point than 2-point shot for our team.

This also can be proved by calculation:

2-point shot scoring rate: the total score of 2-point shot made / the total number of 2-point shot =  $72 / 84 = 0.857$

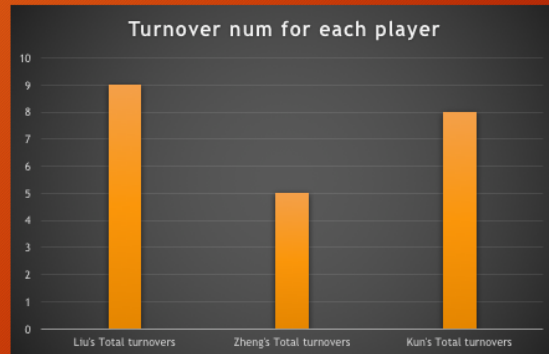
3-point shot scoring rate: the total score of 3-point shot made / the total number of 3-point shot =  $39 / 35 = 1.114$

This means we could score 0.857 points when we shot every 2-point ball and we could score 1.114 points when we shot every 3-point ball.



## Turnovers

This graph shows the total number of turnovers for each player in the six games. The average times of turnover per game is  $22/6 \approx 3.67$ . This is quite a lot for a basketball game.



## Conclusion (so far by the above data)

- Turnovers! The first point is the turnover. Our team needs to reduce the number of turnovers.
- Every team member needs to improve their ability. (especially Zheng needs to catch up)
- Our team could increase the number of 3-point shot. The data shows we have a higher point transfer rate in the 3-point shot.