

POINTS PER POSSESSION

BREAKDOWN

Welcome back to Thunder Basketball season! We're going to start this season learning about points per possession (PPP). PPP explains how efficiently a player or team uses their time with the basketball to score points. The greater the PPP, the greater efficiency a player or team has at scoring points during their possession of the basketball. PPP can be calculated for an entire team, or for an individual player.

Below is the equation to calculate PPP and the variables included in the equation:

$$\frac{\text{PTS}}{(\text{FGA} + (0.44 \cdot \text{FTA}) + \text{TO})}$$

PTS: total number of points made during the game
FGA: total number of field goals shot (includes both misses and makes)
FTA: total number of free-throws shot (includes both misses and makes)
TO: when a player loses possession of the basketball to the opposing team

The numerator is the simple part of the equation, it is the total number of points a player or team scores for the entire game. The denominator attempts to calculate the total number of possessions a player is involved in. We hypothesize that a possession can end in three ways: when a field goal is attempted, a free throw is attempted, or when there is a turnover to give the opponent possession of the basketball. Since the box score does not count the number of possessions a player is involved in, this is the best way to estimate total number of possessions.

Below is a box score for Paul George, Steven Adams, and Russell Westbrook from the OKC Thunder's win over the Utah Jazz on April 25, 2018.

PLAYER	PTS	FGA	FTA	TO
George	34	26	10	2
Adams	6	6	2	0
Westbrook	45	39	6	5

Paul George had a PPP of 1.05, Russell Westbrook had a PPP of 0.96, and Steven Adams had a PPP of 0.87.

POINTS PER POSSESSION

LET'S PRACTICE

Let's calculate PPP on our own. Complete the table below by calculating each player's PPP, when simplifying don't forget to round to the nearest tenth, or the first number to the right of the decimal. Once you've completed the table, answer the questions below.

$$\frac{\text{PTS}}{(\text{FGA} + (0.44 \cdot \text{FTA}) + \text{TO})}$$

PLAYER	PTS	FGA	FTA	TO	PPP
A	30	25	9	9	
B	14	8	0	1	
C	24	12	4	10	

1. Rank the players in order based on their PPP from greatest to least, don't forget to include any necessary symbols, <, >, =, <\, >\

2. According to the box score Player A had the most points, did this mean they had the greatest PPP? Please explain your answer.

3. Put on your coaching hat, based on the box score above what is one thing you would tell each of your players to change during the game to improve their PPP?

