

	playername	groupteam	metric	value	team_mean	team_std	z_score	team	significant_deviation	team	player_mean	declined	vs_player_mean
0	PLAYER_376	Women's Basketball	Jump Height(M)	0.1465	0.266626	0.071238	-1.762862	False	0.182737	Declined	(<90%)		
1	PLAYER_376	Women's Basketball	Peak Propulsive Power(W)	2588.1972	3317.845869	691.965167	-1.054459	False	3107.815495	Declined	(<95%)		
2	PLAYER_376	Women's Basketball	Peak Velocity(M/S)	1.8761	2.414325	0.350799	-1.534286	False	2.089932	Declined	(<95%)		
3	PLAYER_376	Women's Basketball	Jump Height(M)	0.1361	0.266626	0.071238	-1.823827	False	0.182737	Declined	(<90%)		
4	PLAYER_376	Women's Basketball	Peak Propulsive Power(W)	2638.1622	3317.845869	691.965167	-0.982251	False	3107.815495	Declined	(<95%)		

The flagging snapshot above is derived from "[part4\\_flags.py](#)".

**team\_mean** represents the average value of a given performance metric across all players on the team. It provides a baseline for evaluating how an individual athlete compares to their teammates, helping coaches and analysts identify whether a player is performing above, below, or in-line with team norms.

**team\_std** refers to the standard deviation of the metric across the team, quantifying how much variation exists among players. A low standard deviation indicates consistency across the team, while a high standard deviation suggests a wide range of performance levels for that metric.

**z\_score\_team** is a standardized score that shows how far a player's value deviates from the team average, expressed in units of standard deviation. It is calculated using the formula:  $(\text{player metric value} - \text{team metric mean}) / \text{team std}$ . This allows for apples-to-apples comparisons across different metrics and helps flag outliers.

**significant\_deviation\_team** is a Boolean indicator that flags whether a player's z-score is significantly different from the team average. Typically, thresholds like  $\pm 2$  standard deviations are used to determine statistical significance, helping identify extreme performers or potential anomalies. FALSE = "less than 2 points in deviation". YES = "greater than 2 in deviation".

**player\_mean** captures the athlete's own historical average for a given metric. This personal benchmark is essential for tracking trends over time, such as improvement, regression, or recovery, and adds context beyond team-level comparisons.

**declined\_vs\_player\_mean** is a qualitative flag that assesses whether the player's current performance has dropped below their own historical average. Rate is based on threshold per metric by research