

In Volleyball, Should The Tallest Player Play In The OP Position?

By: Taniel Migdesyan



Common Stereotypes In Sports

Common Stereotypes In Sports



- With Basketball

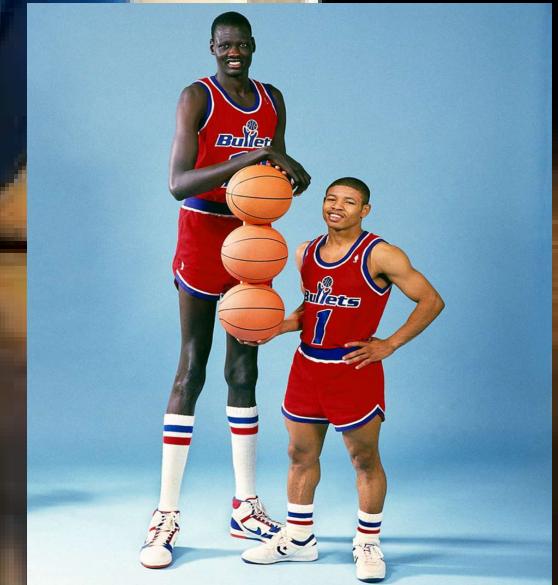
- If you're tall, you should play center
- If you're small, you should play point guard

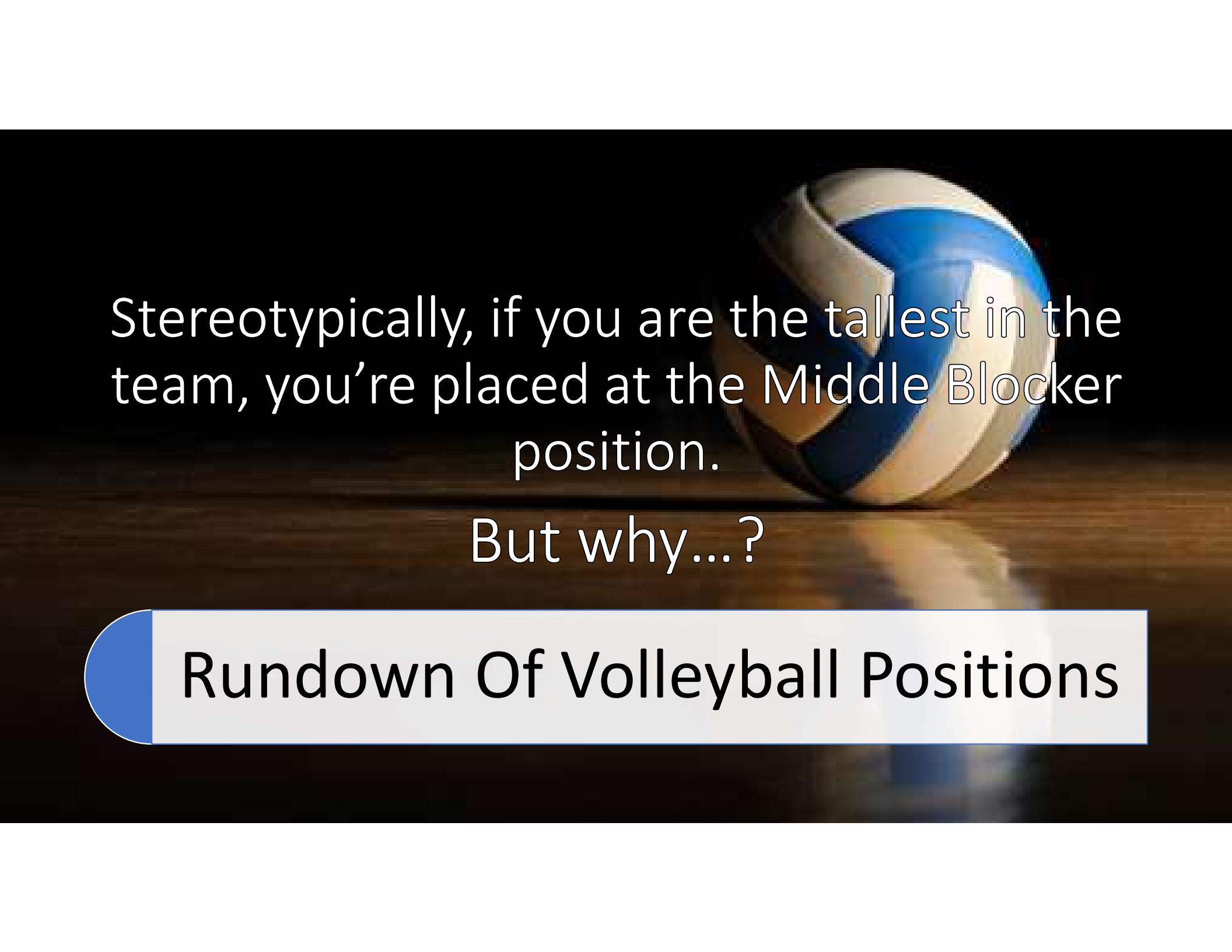
- With American Football:

- If you're big and large, you can't be a quarterback or a wide receiver

- In general:

- Boys are better than girls



A blurred background image of a volleyball player in action, showing a close-up of a hand gripping a volleyball. The ball is white with blue and yellow patterns. The player's arm is extended, and the background is dark.

Stereotypically, if you are the tallest in the team, you're placed at the Middle Blocker position.

But why...?

Rundown Of Volleyball Positions

Rundown Of Volleyball Positions

VOLLEYBALL POSITIONS: NAMES & ZONES ON COURT			
5	4	Opposite Hitter	Setter
6	3	Middle Blocker	Middle Blocker/Libero
1	2	Outside Hitter	Outside Hitter

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Setter:

- QB of the team
- Decides where to set the ball to, for the hitter to spike
- Block

Libero:

- Defensive Specialist of the team
- Quick reflexes

Rundown Of Volleyball Positions

VOLLEYBALL POSITIONS: NAMES & ZONES ON COURT			
5	4	Opposite Hitter	Setter
6	3	Middle Blocker	Middle Blocker/Libero
1	2	Outside Hitter	Outside Hitter

© VOLLEYBALLVALLEY.COM

Outside Hitters (OH):

- Defend/Bump
- Spike
- Block 1 side
- Quick reflexes

Middle Blocker (MB):

- Primary Blocker
- Has to block all 3 areas of the court
- Spike

Opposite Hitter (OP):

- Spike
- Block 1 side

A close-up photograph of a person's hand holding a blue and white soccer ball. The ball is positioned in the upper right corner of the frame, with the hand gripping it from below. The background is dark and out of focus.

What's the reason for the stereotype?

What's the reason for the stereotype?

Primarily, because of the “Block Speed”. According to Australian MB player Harvey Meale:

“When a 210cm guy stands at the net with his hands high, ready to block, it’s only a short distance to go from there to blocking the opposition middle. It’s basically a toe jump. On the other hand, if you’re 200cm, you’ve got to move your body 10cm further into the air (probably further because your arms will likely be shorter) to make the same block.”

<https://volleyballvault.com/how-tall-are-middle-blockers-in-volleyball/>

A photograph of a person from the waist up, wearing a blue and white horizontally striped long-sleeved shirt and a yellow baseball cap. They are seated at a dark wooden desk, looking towards the camera. The background is dark.

Although right, should the
tallest maybe play a
different position?

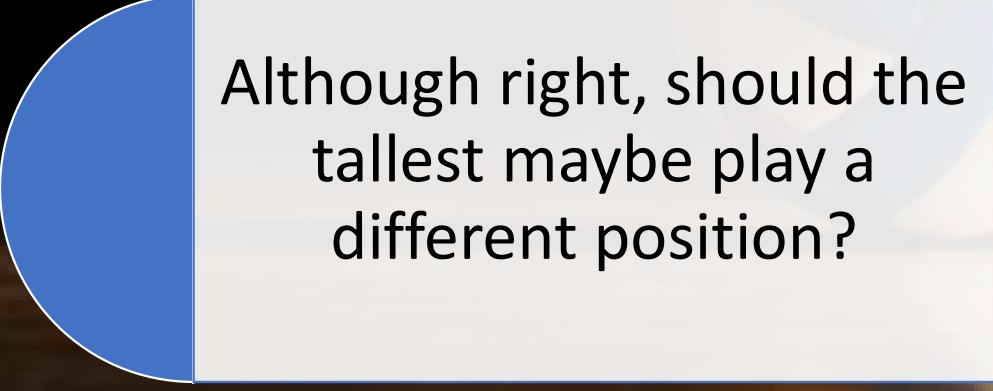


Setter:

- Leader of the team
- Decides where to set the ball so, for the hitter to spike
- Block

Outside Hitter (OH):

- Dend/Pump
- Spike
- Block 1 side
- Quick reflexes



Although right, should the tallest maybe play a different position?

Libero:

- Defensive Specialist of the team
- Quick reflexes

Opposite Hitter (OP):

- Spike
- Block 1 side



Would the tallest,
playing at OP, be more
advantageous or not to
the team



Agenda

Agenda

1

Relation Between The Position And Height Of Players

2

Relation Between The Height And Spike Height Of Players

3

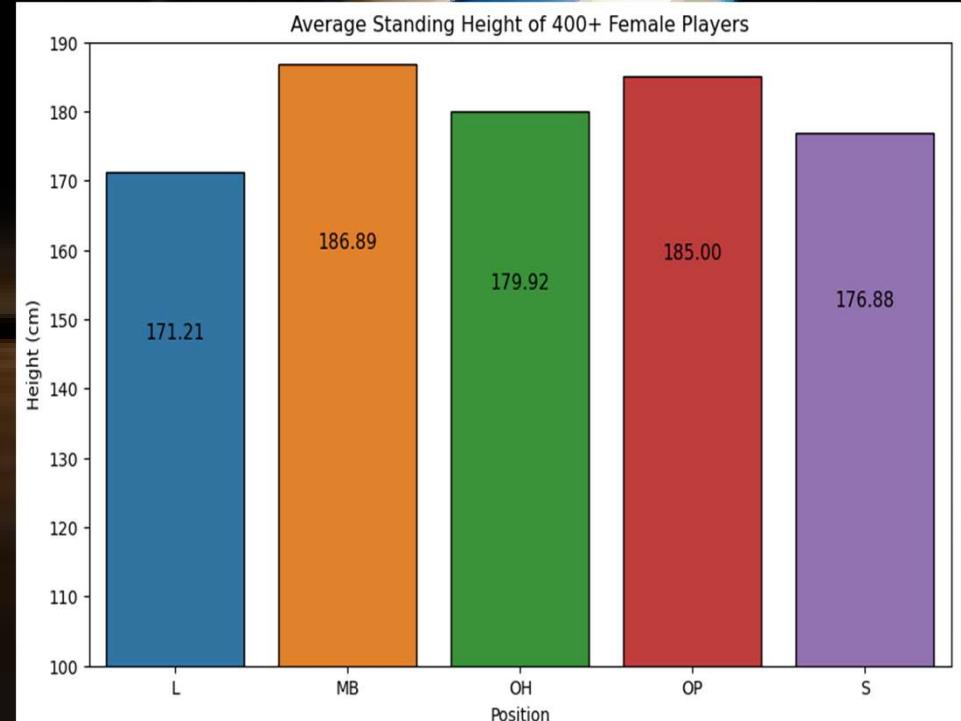
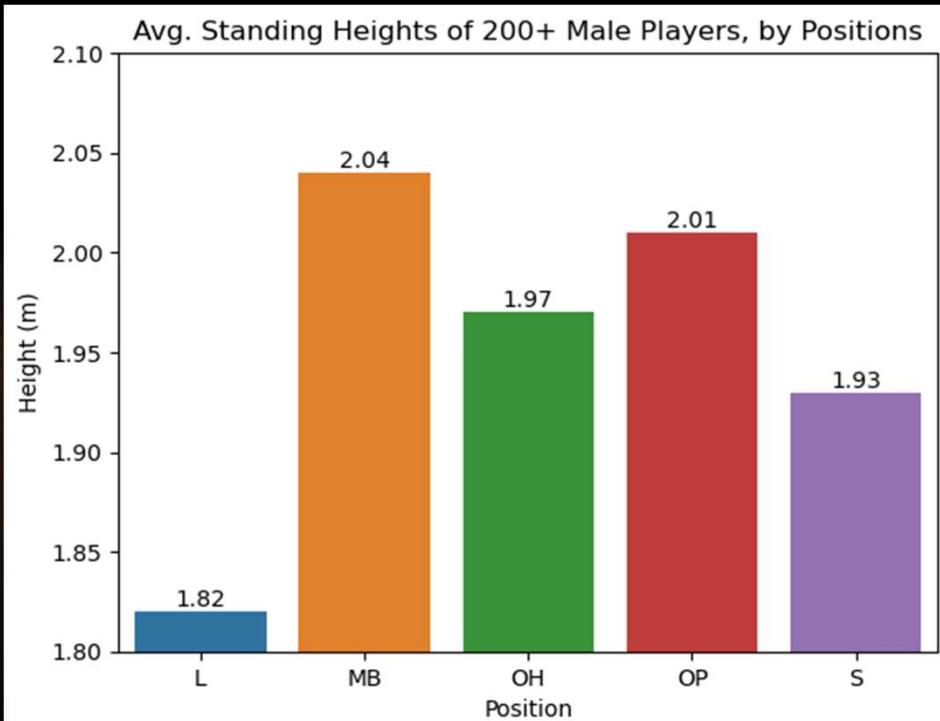
Prove How The Higher Spike Height, The More Field Range The Player Has To Spike The Ball Wherever He/She Wants, Statistically

4

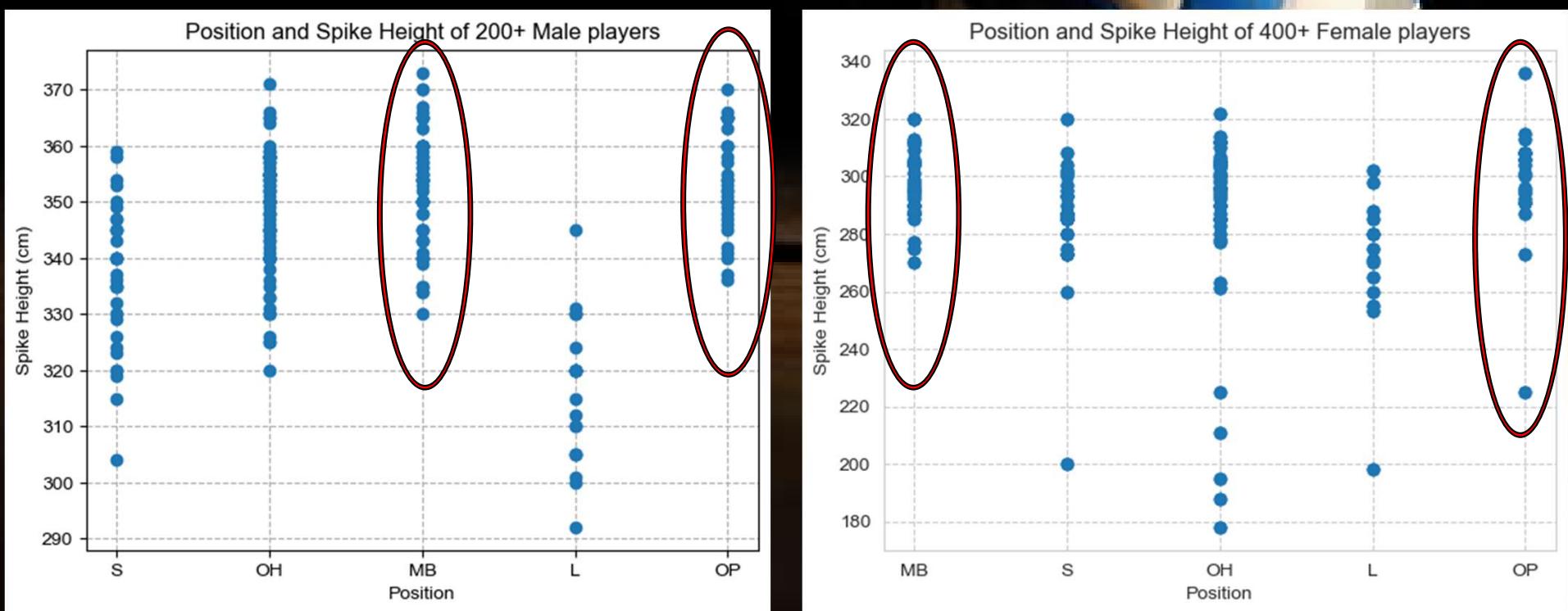
Effectiveness Of Current Pro Teams That Are Using This Strategy

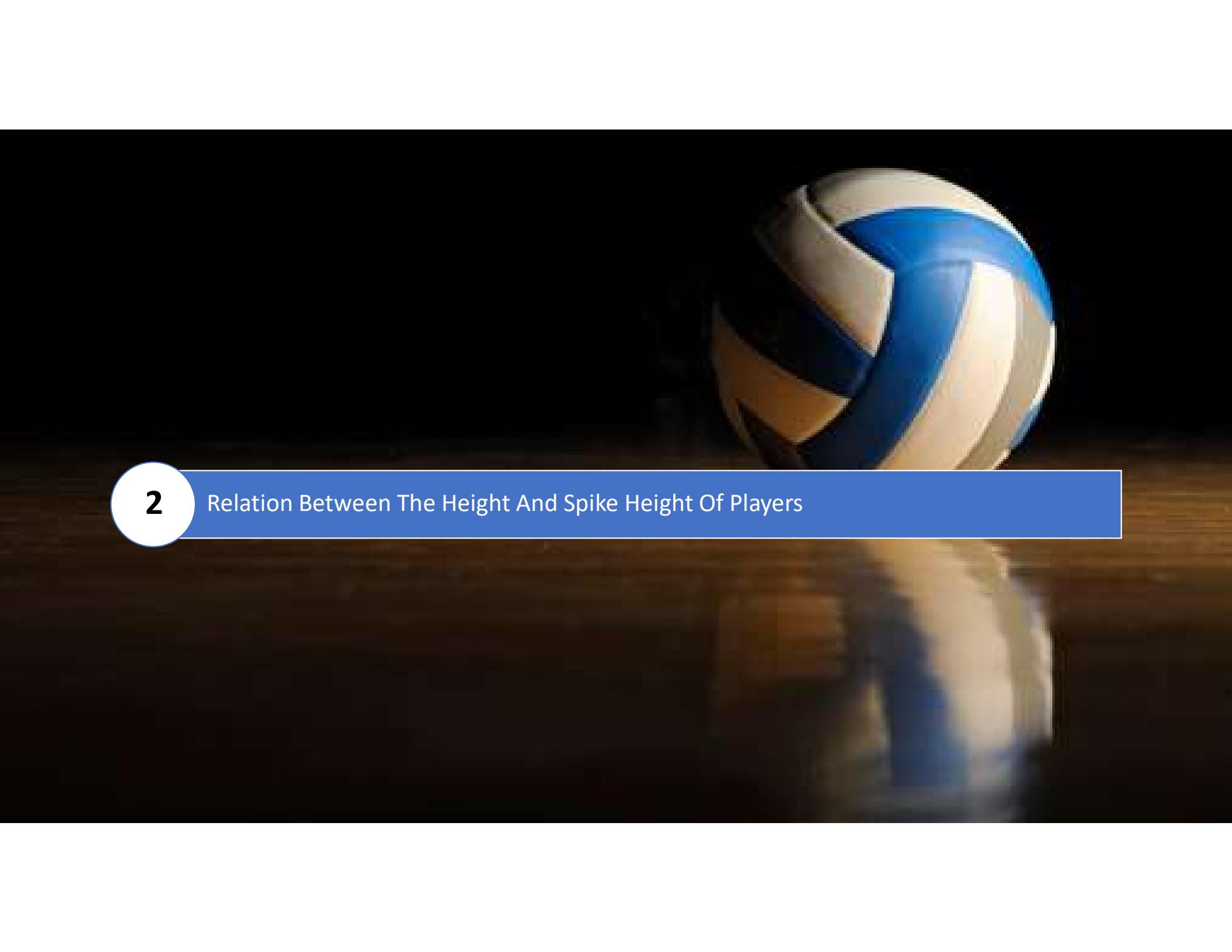
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Relation Between The Position And Height Of Players



Relation between the position and spike height of players

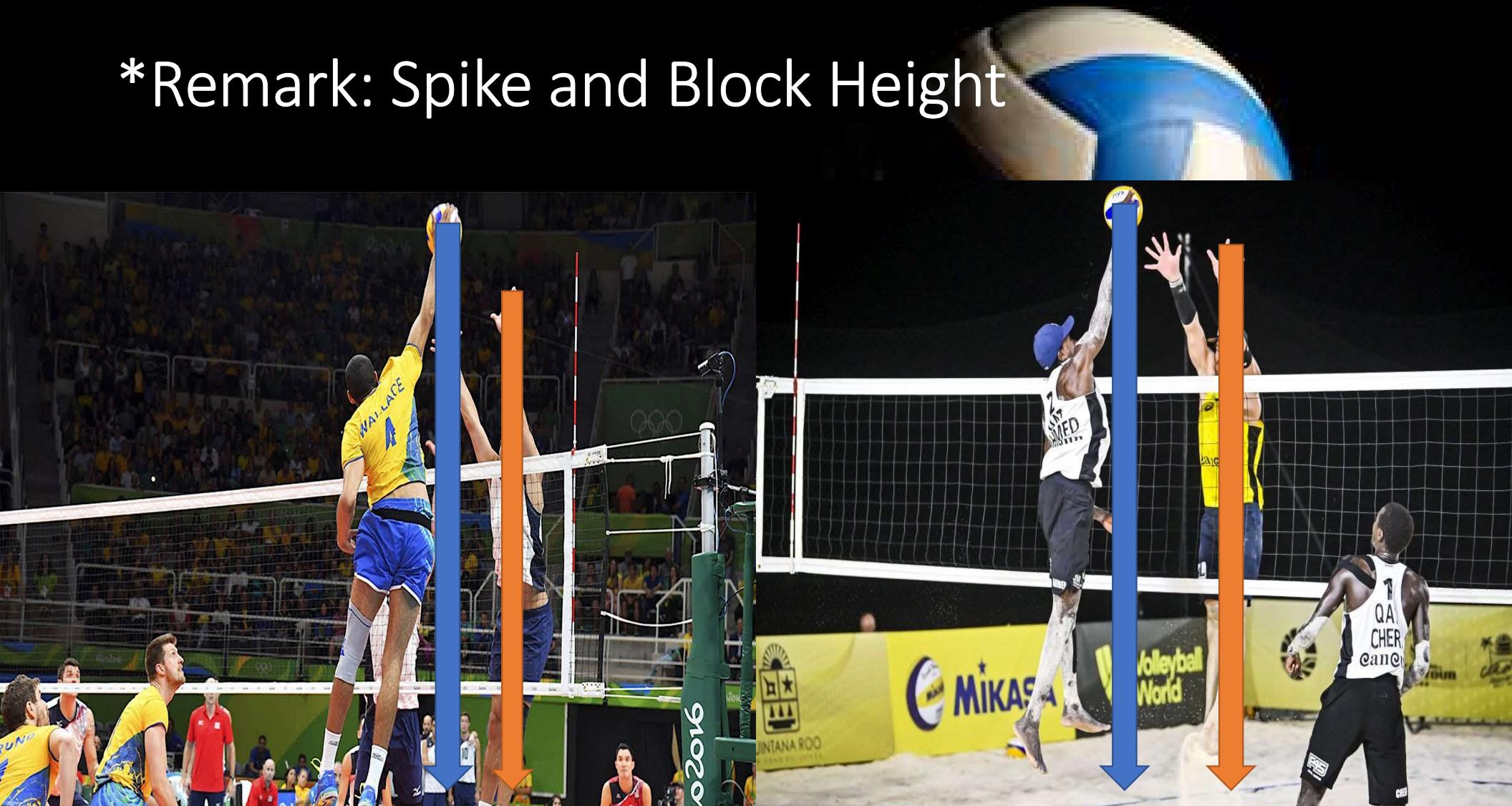




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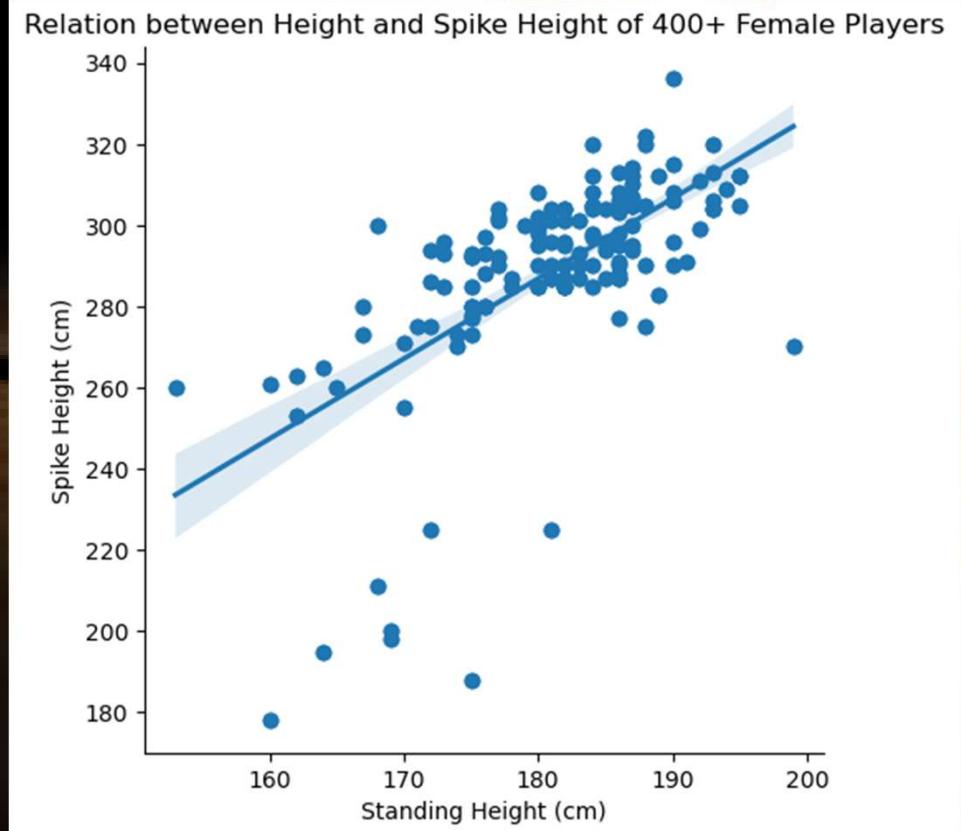
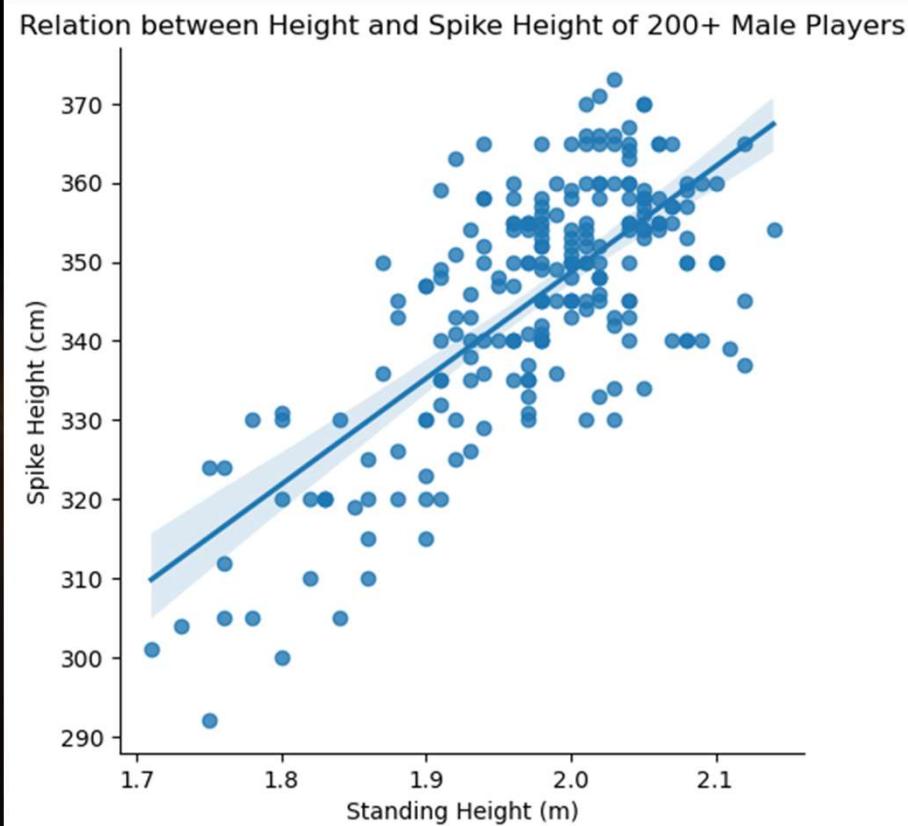
Relation Between The Height And Spike Height Of Players

*Remark: Spike and Block Height



2

Relation Between The Height And Spike Height Of Players



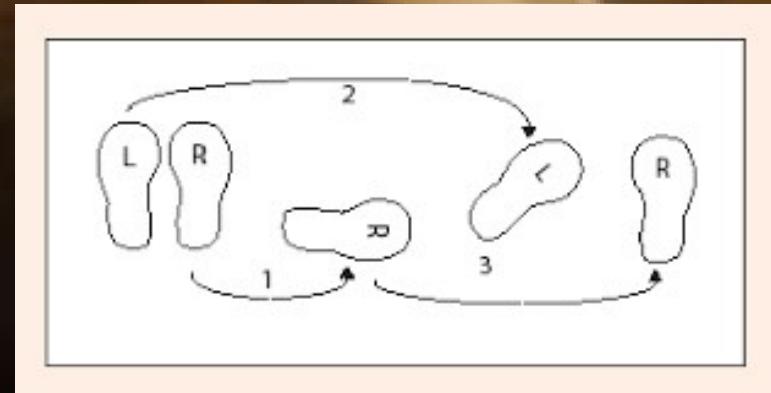
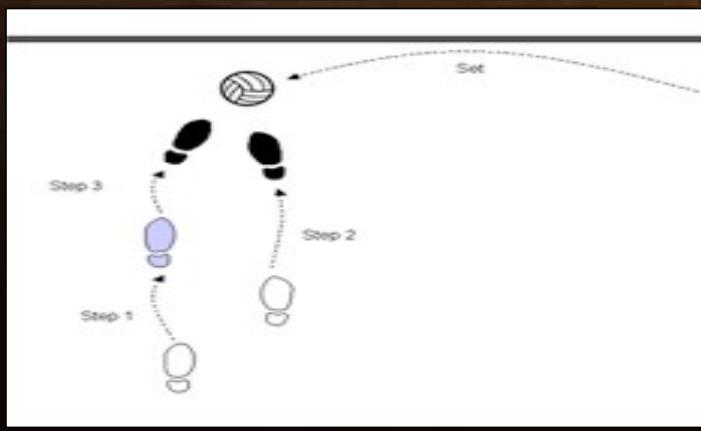
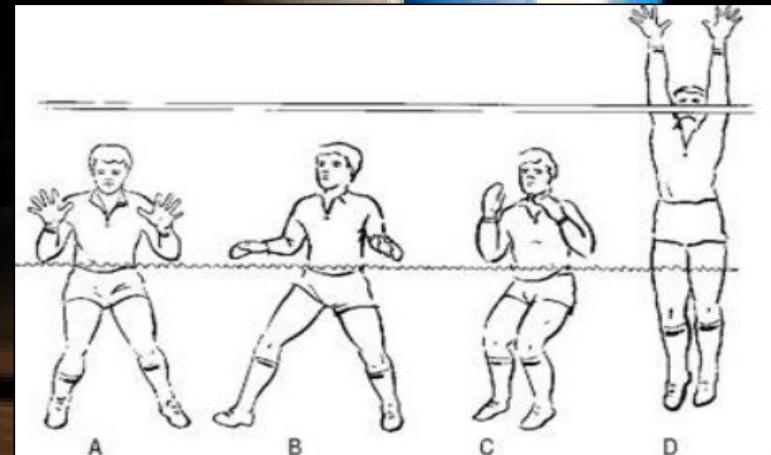
*Remark: Comparison between Spike and Block Heights





3-Step Spike vs 2-Step Block Approach

3-Step Spike vs 2-Step Block Approach





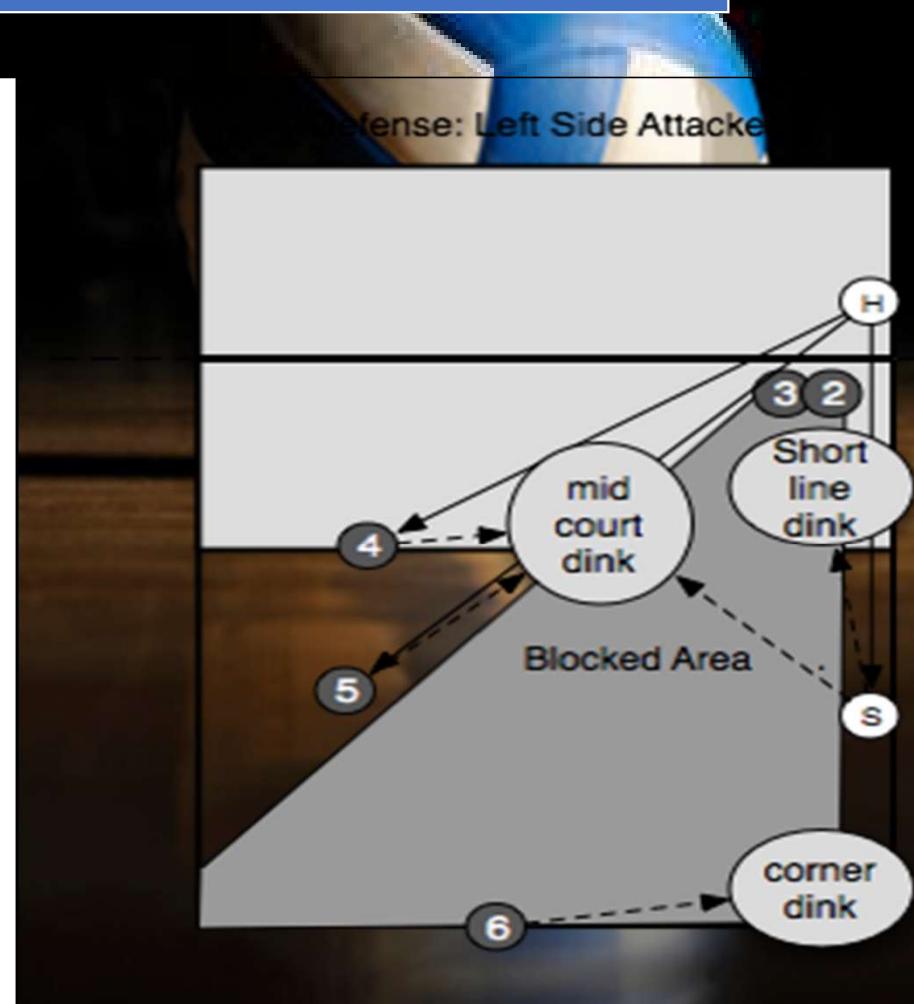
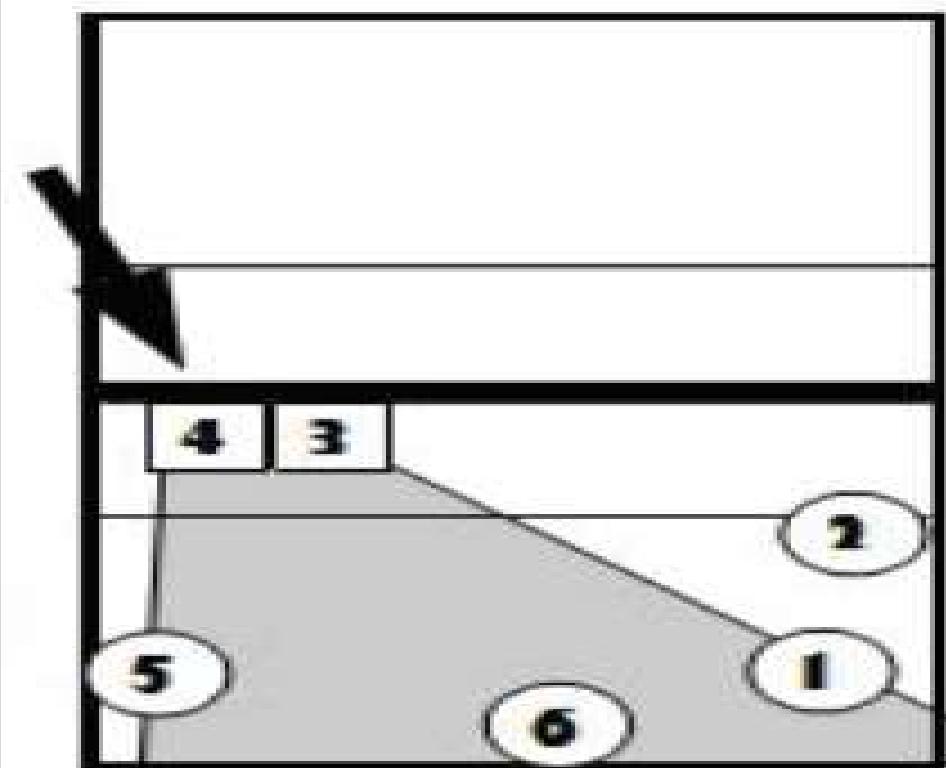


3

Prove How The Higher Spike Height, The More Field Range The Player Has To Spike The Ball Wherever He/She Wants, Statistically

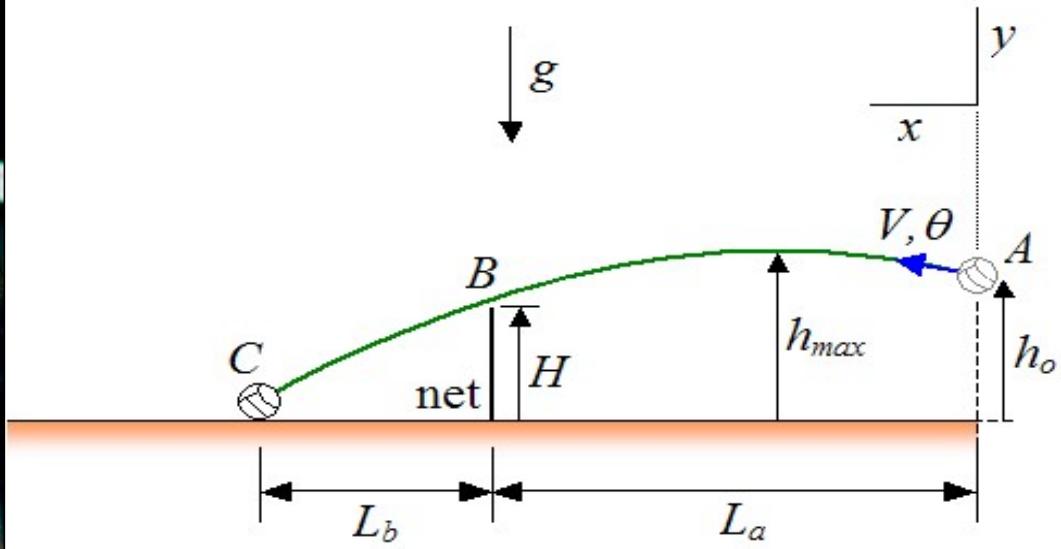
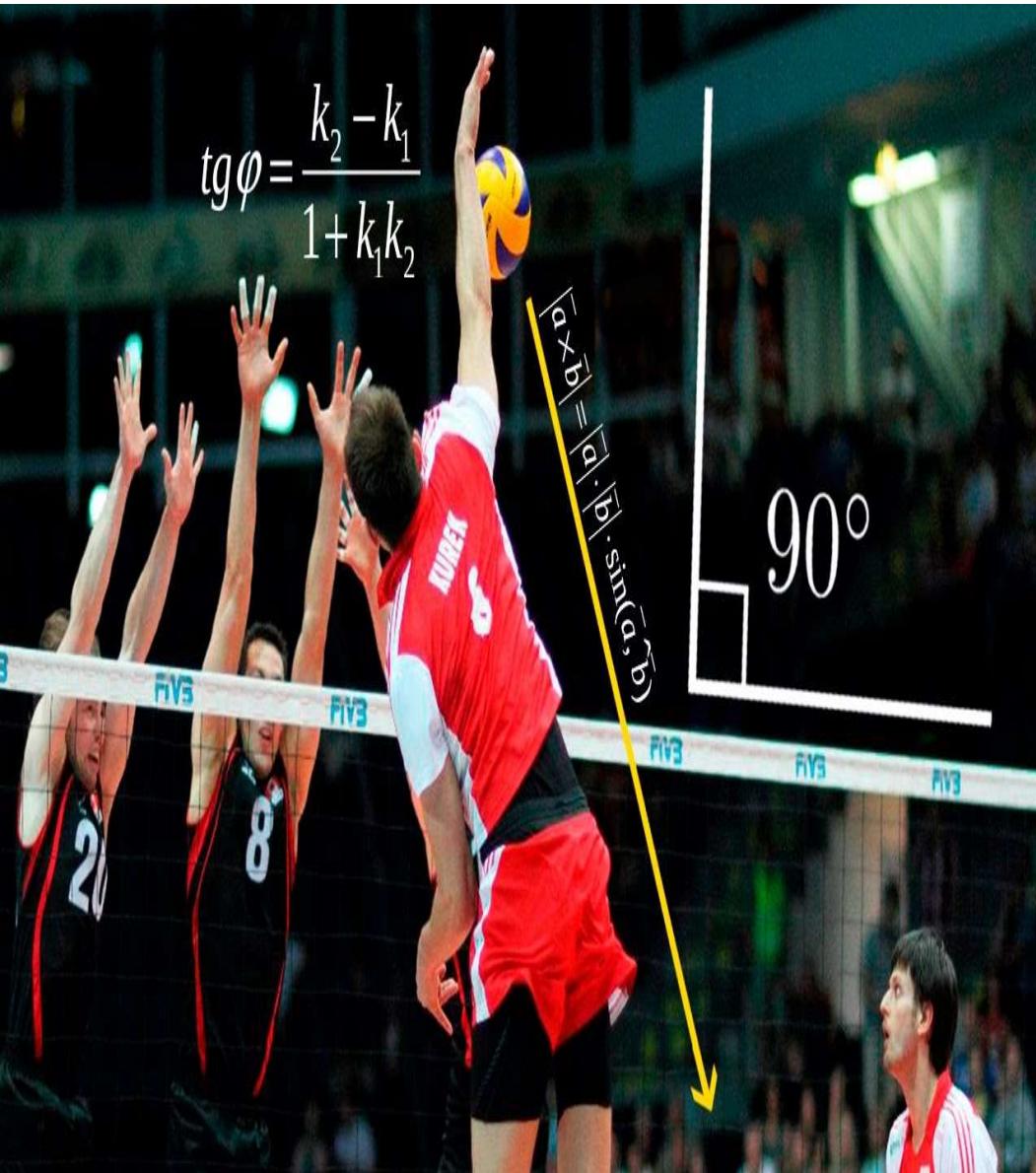
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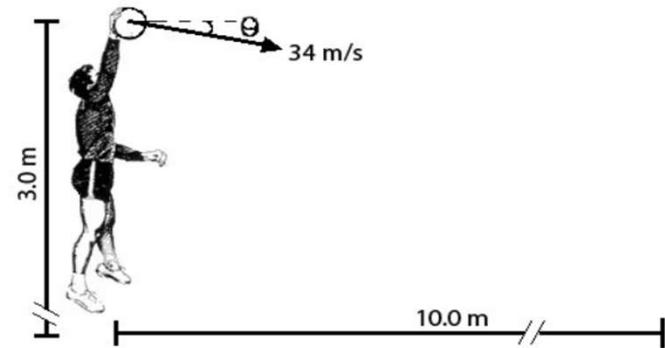


$$\tan \varphi = \frac{k_2 - k_1}{1 + k_1 k_2}$$

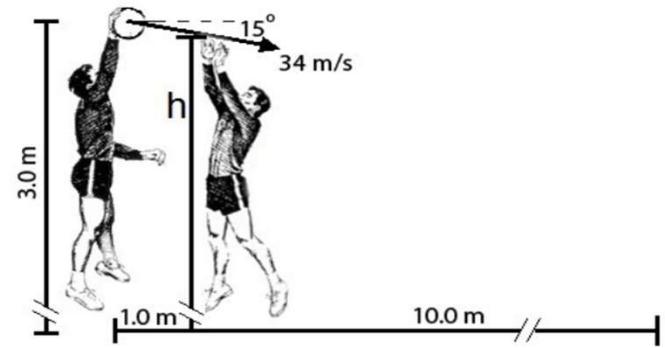
$$|\vec{a} \times \vec{b}| = |\vec{a}| \cdot |\vec{b}| \cdot \sin(\hat{\alpha}, \hat{\beta})$$



- 38) A volleyball player can reach a height of 3.0 m and spike the ball at a velocity of 34 m/s. What angle must the trajectory be in order for the ball to land before it reaches the boundary 10.0 m away?



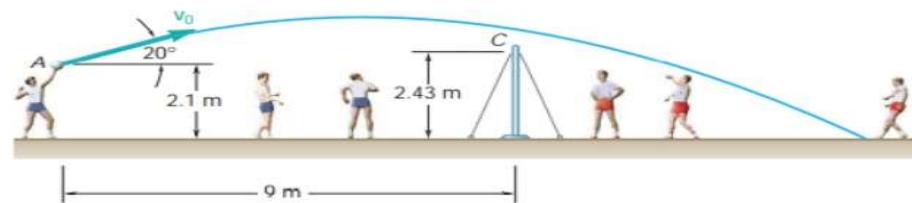
- 39) A volleyball player knows that he must spike the ball with a downward trajectory of 15 degrees in order to land in bounds. How high must the blocker reach in order to stop the ball if the blocker is 1.0 m away?



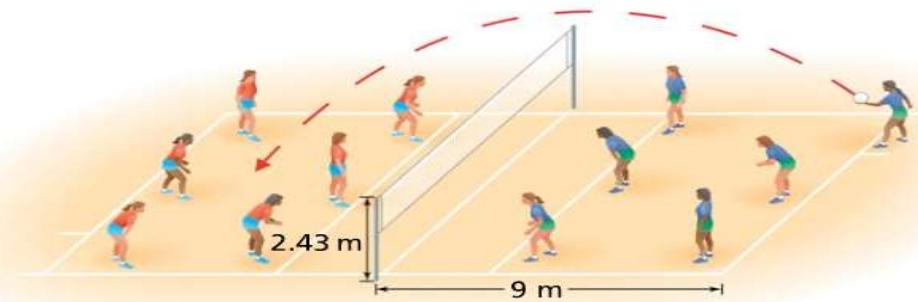
In a volleyball game, A player serves the ball at an initial velocity of 12.5 m/s at angle 20° as shown.

Determine:

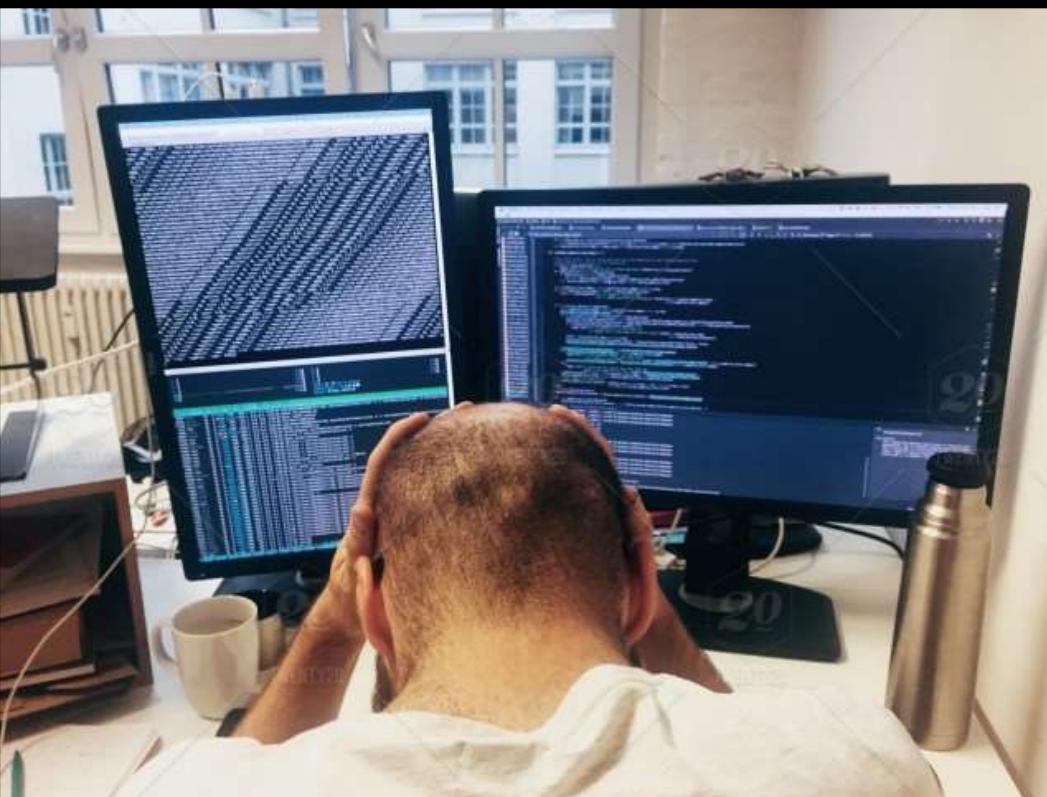
- if the ball will clear the top of the net
- how far from the net the ball will land?



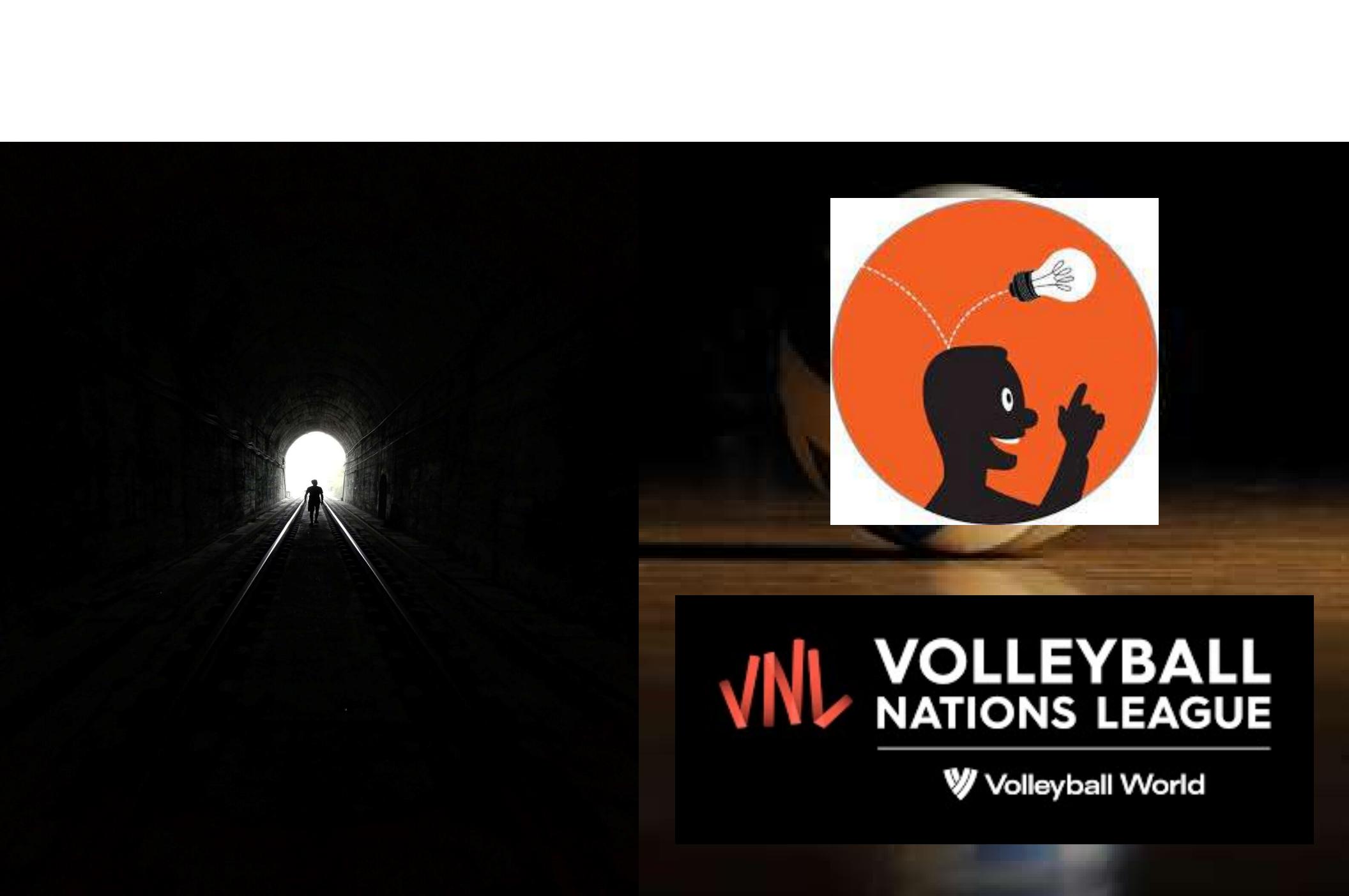
42. Suppose a volleyball player serves from 1 m behind the back line. If no other player touches the ball, it will land in bounds. The equation $h = -4.9t^2 + 3.82t + 1.7$ gives the ball's height h in meters in terms of time t in seconds.



- When will the ball be at its highest point? Round to the nearest tenth of a second.
- The ball will reach the net at $t = 0.6$ s. Will it clear the net? Explain.



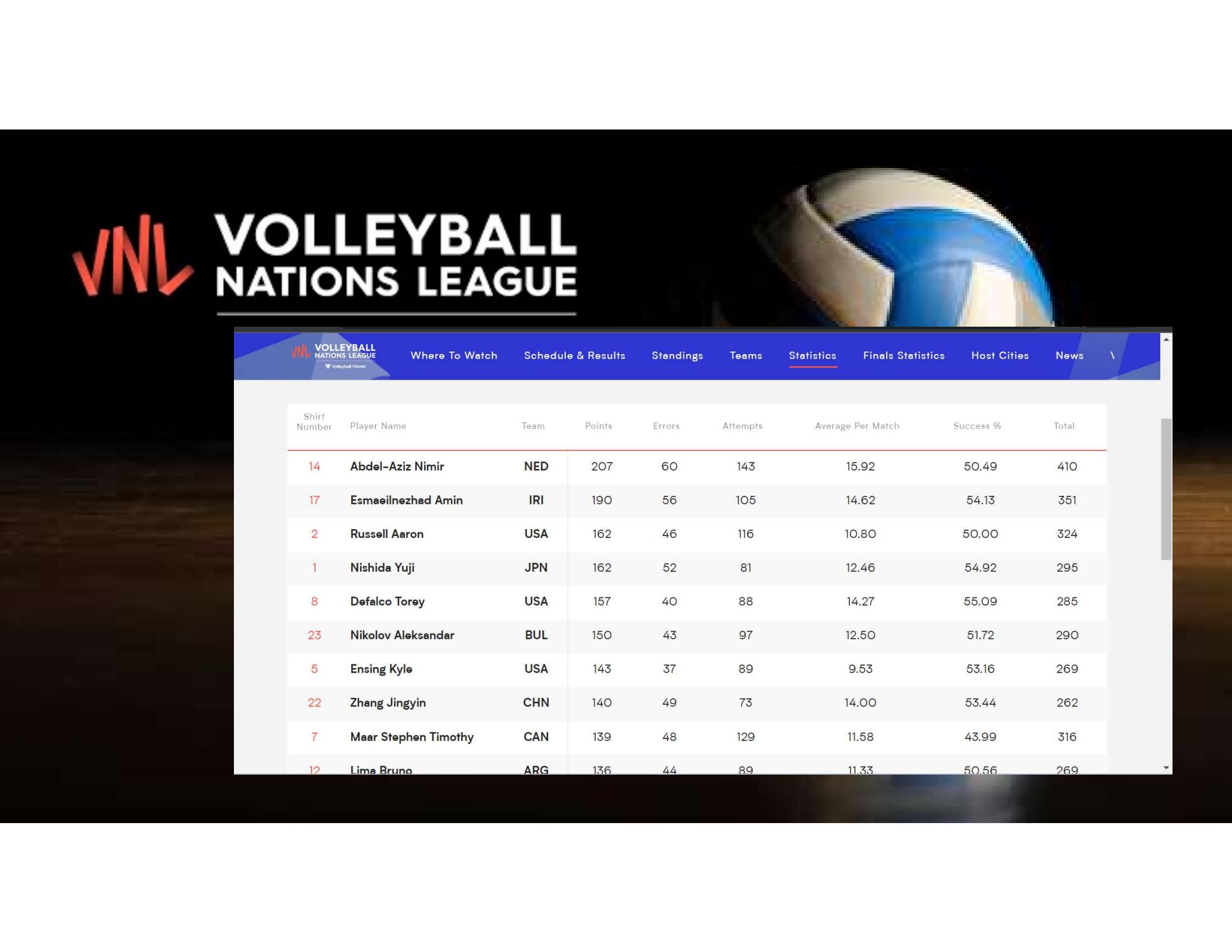




VNL VOLLEYBALL
NATIONS LEAGUE

 Volleyball World

VNL VOLLEYBALL NATIONS LEAGUE

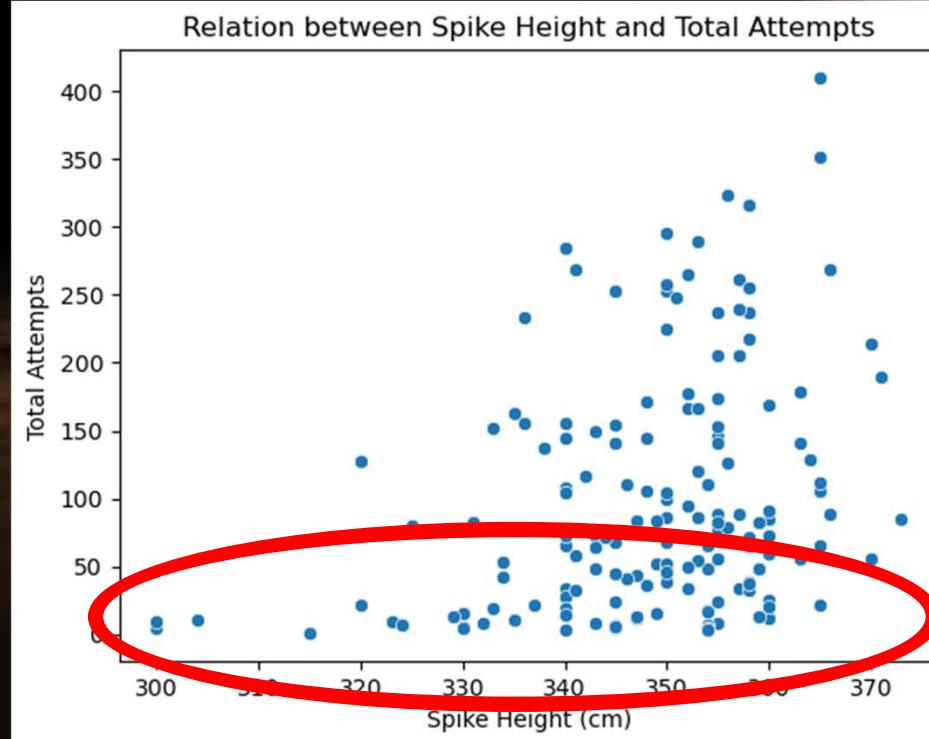


The image shows a screenshot of the Volleyball Nations League (VNL) website. The header features the VNL logo and the text "VOLLEYBALL NATIONS LEAGUE" in large white letters, with "Volleyball World" below it. The navigation menu includes links for "Where To Watch", "Schedule & Results", "Standings", "Teams", "Statistics" (which is underlined), "Finals Statistics", "Host Cities", and "News". Below the menu is a table titled "Statistics" showing player performance data.

Shirt Number	Player Name	Team	Points	Errors	Attempts	Average Per Match	Success %	Total
14	Abdel-Aziz Nimir	NED	207	60	143	15.92	50.49	410
17	Esmaeilnezhad Amin	IRI	190	56	105	14.62	54.13	351
2	Russell Aaron	USA	162	46	116	10.80	50.00	324
1	Nishida Yuji	JPN	162	52	81	12.46	54.92	295
8	Defalco Torey	USA	157	40	88	14.27	55.09	285
23	Nikolov Aleksandar	BUL	150	43	97	12.50	51.72	290
5	Ensing Kyle	USA	143	37	89	9.53	53.16	269
22	Zhang Jingyin	CHN	140	49	73	14.00	53.44	262
7	Maar Stephen Timothy	CAN	139	48	129	11.58	43.99	316
12	Lima Bruno	ARG	136	44	89	11.33	50.56	269

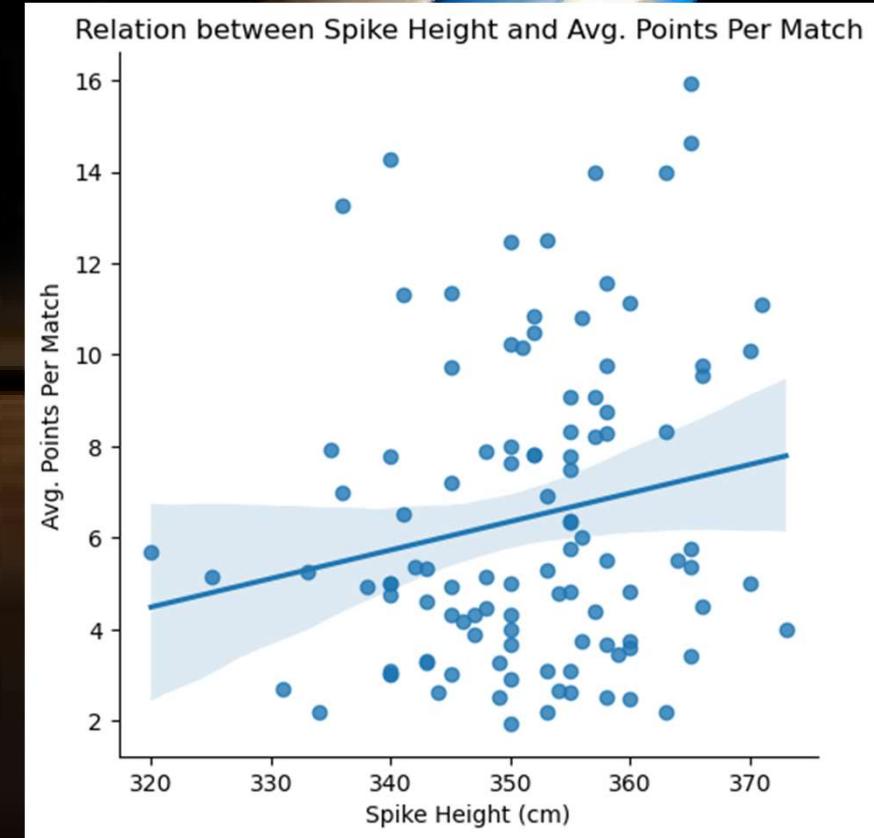
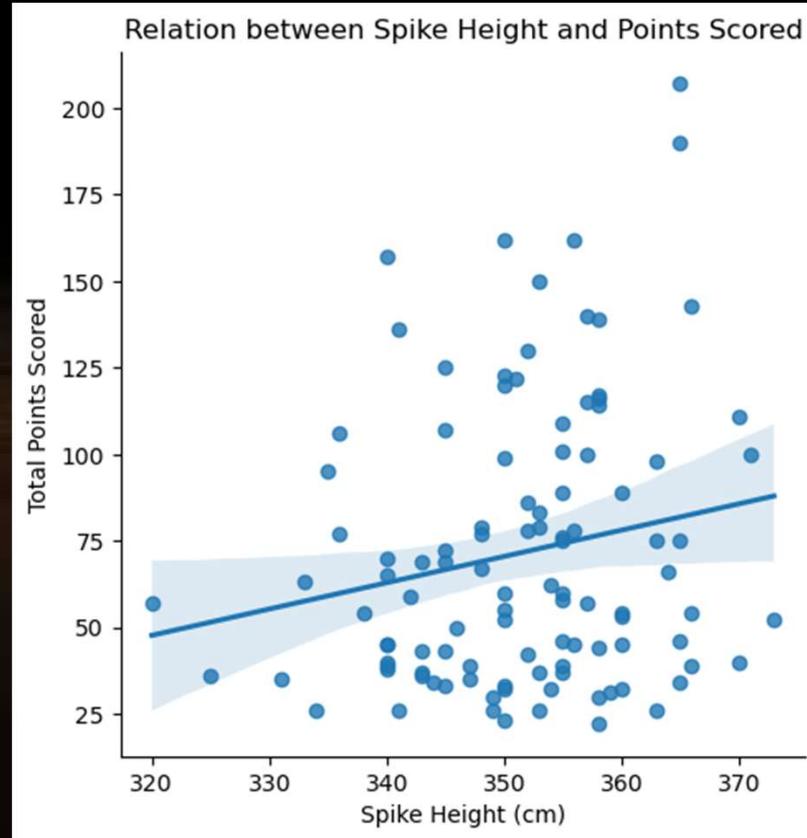
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Prove How The Higher Spike Height, The More Field Range The Player Has To Spike The Ball Wherever He/She Wants, Statistically



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Prove How The Higher Spike Height, The More Field Range The Player Has To Spike The Ball Wherever He/She Wants, Statistically



A soccer ball with blue and white panels is positioned in the upper right corner of the image. It is partially obscured by a dark, semi-transparent rectangular overlay that contains the text.

Has this strategy been used?



Has this strategy been used?

YES!!!



Has this strategy been used?

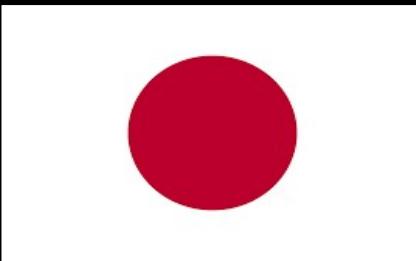
YES!!!

4

Effectiveness Of Current Pro Teams That Are Using This Strategy

4

Effectiveness Of Current Pro Teams That Are Using This Strategy



4

Effectiveness Of Current Pro Teams That Are Using This Strategy



Sharone Vernon-Evans



Personal information

Nationality

🇨🇦 Canadian

Born

28 August 1998 (age 24)

Scarborough, Ontario, Canada

Height

2.06 m (6 ft 9 in)

Weight

101 kg (223 lb)

Spike

382 cm (150 in)

Block

347 cm (137 in)



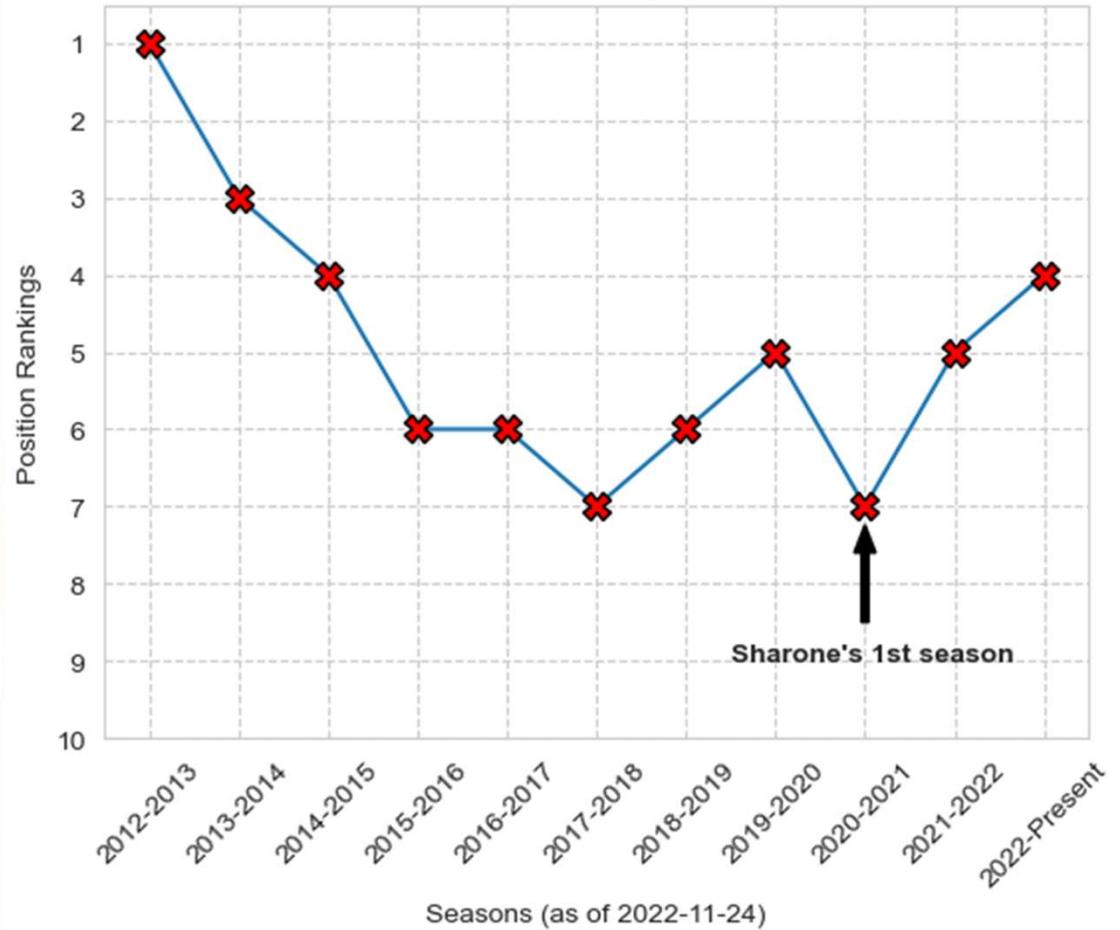
Sharone Vernon-Evans



Personal information

Nationality	Canadian
Born	28 August 1998 (age 24) Scarborough, Ontario, Canada
Height	2.06 m (6 ft 9 in)
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Block	347 cm (137 in)

Osaka Sakai's yearly standings, from last 10 years



Bartosz Kurek



Personal information

Full name	Bartosz Kamil Kurek
Nickname	Kuraś
Nationality	Polish
Born	29 August 1988 (age 34) Wałbrzych, Poland
Height	2.05 m (6 ft 9 in)
Weight	105 kg (231 lb)
Spike	370 cm (146 in)
Block	340 cm (134 in)



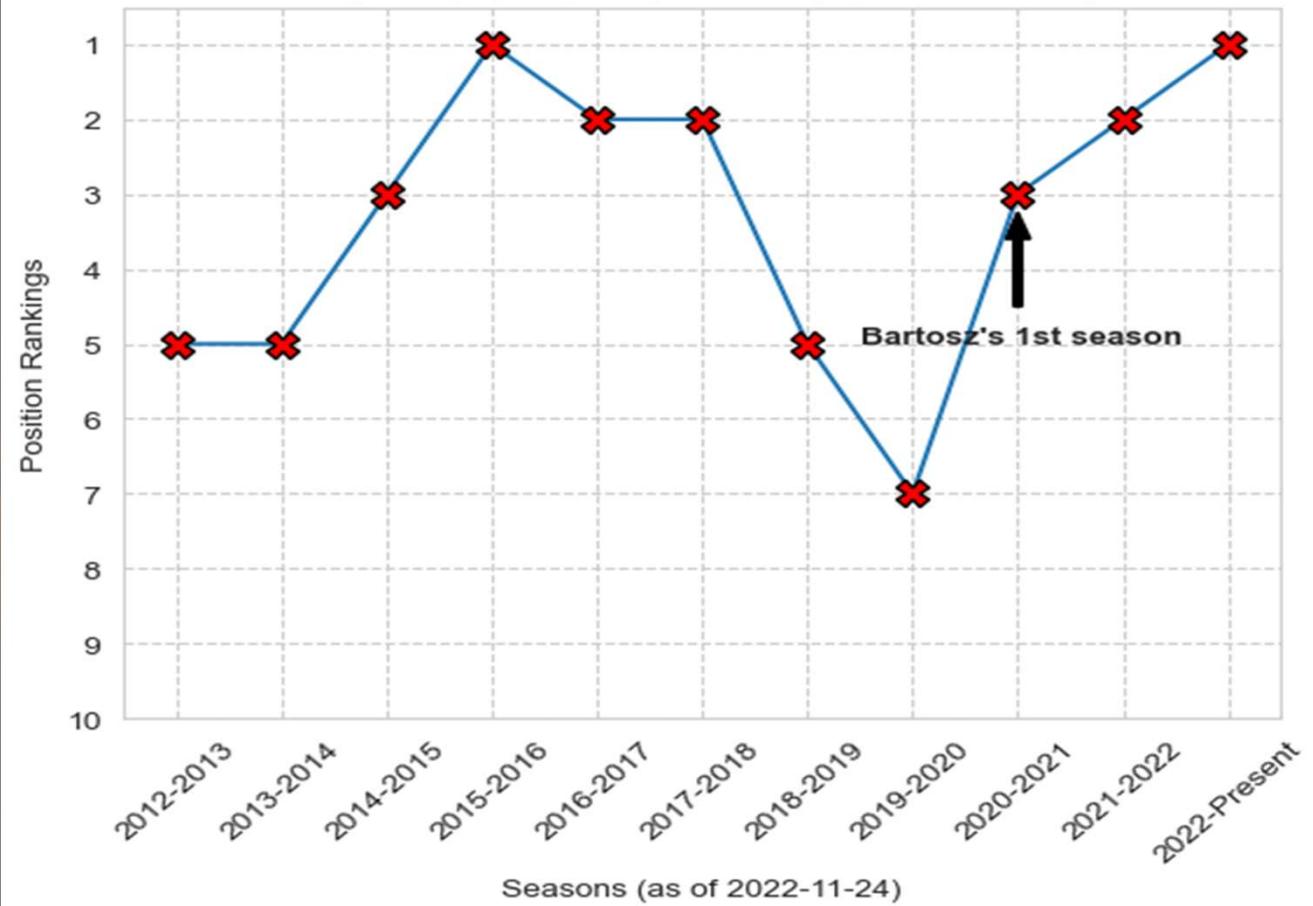
Bartosz Kurek



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Height	2.05 m (6 ft. 9 in)
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Wolfdogs Nagoya's yearly standings, from last 10 years



Robertlandy Simón



Personal information

Full name	Robertlandy Simón Aties
Nationality	Cuban
Born	June 11, 1987 (age 35) Guantánamo, Cuba
Height	2.08 m (6 ft 10 in)
Weight	114 kg (251 lb)
Spike	384 cm (151 in)
Block	362 cm (143 in)



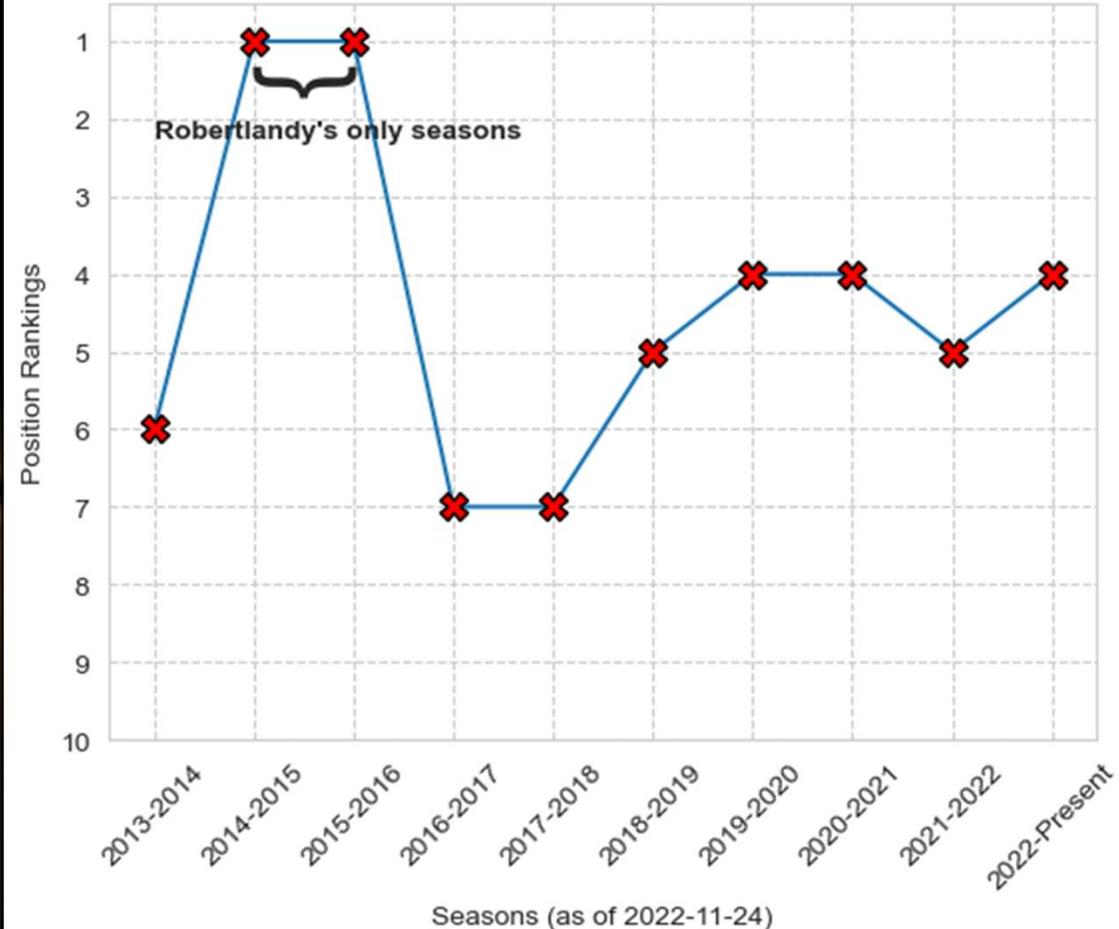
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Ansan Okman's yearly standings, from last 9 years



Dmitriy Muserskiy



Personal information

Full name	Dmitry Aleksandrovich Muserskiy
Nickname	<i>Dima, Small boy, Sir</i>
Nationality	Ukrainian Russian
Born	29 October 1988 (age 34) Makiivka, Soviet Union, Ukraine
Height	2.18 m (7 ft 2 in)
Weight	105 kg (231 lb)
Spike	375 cm (148 in)
Block	365 cm (144 in)



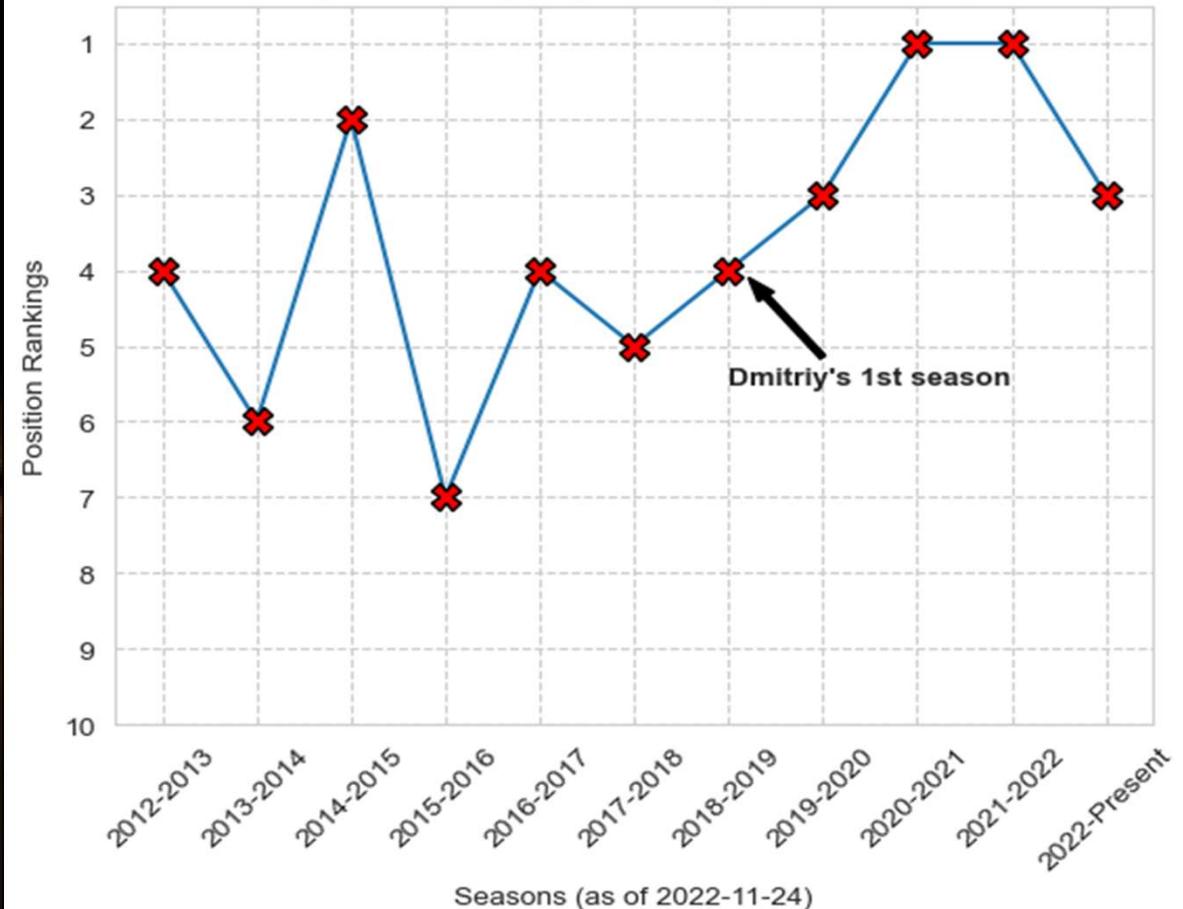
Dmitriy Muserskiy

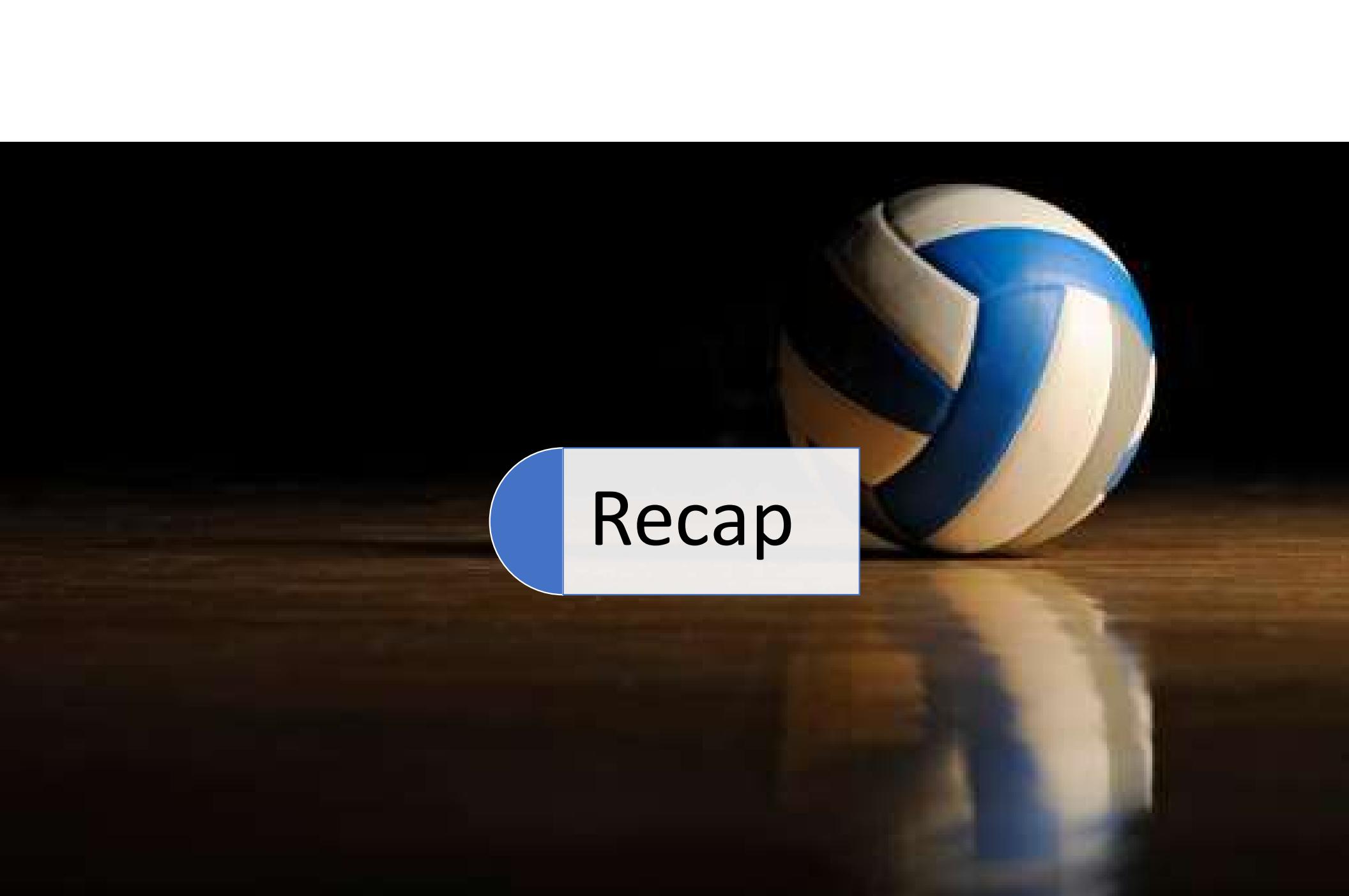


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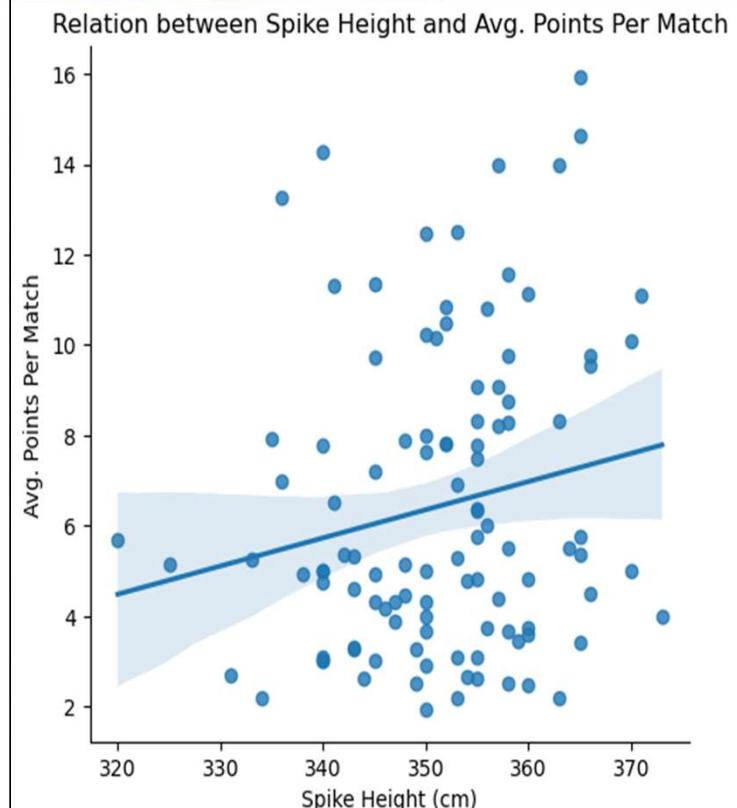
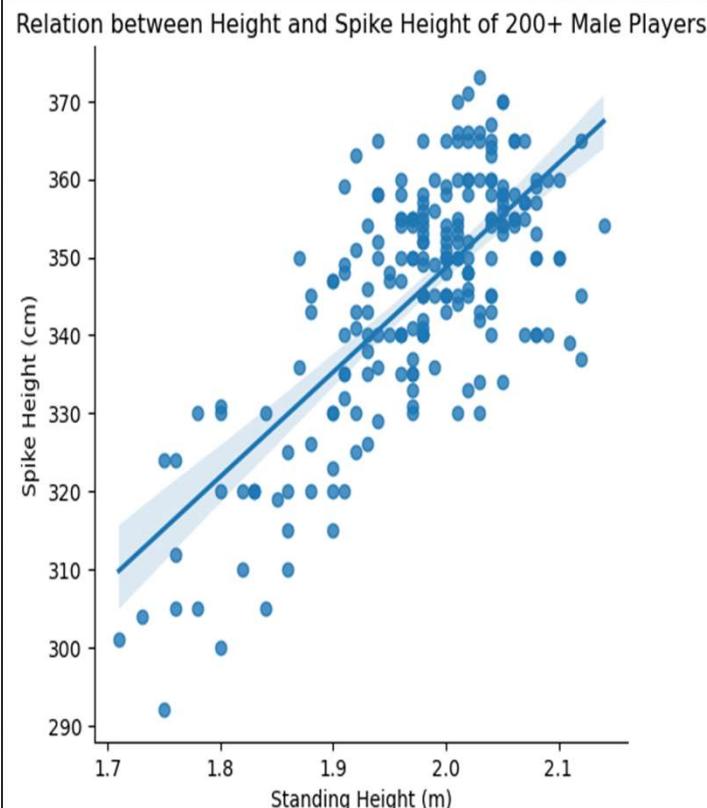
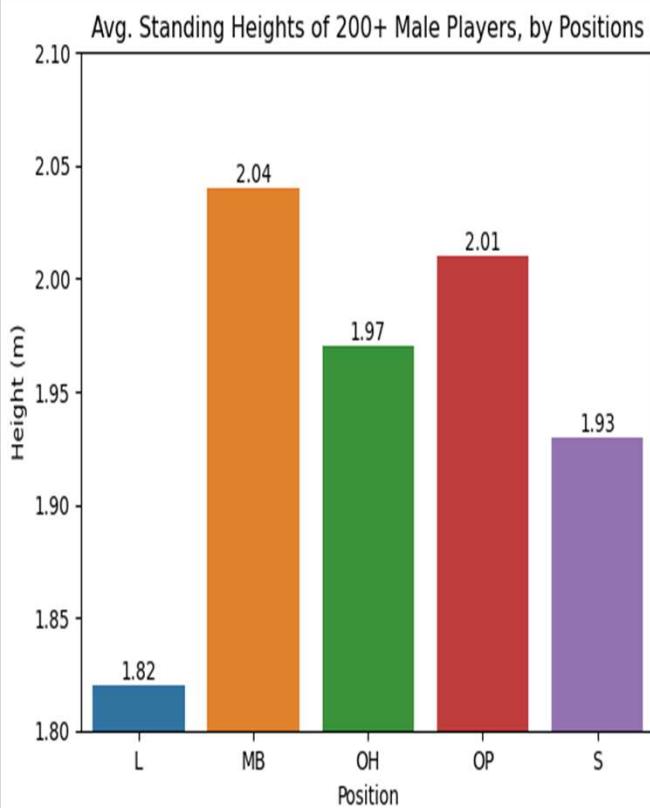
Suntory Sunbirds' yearly standings, from last 10 years



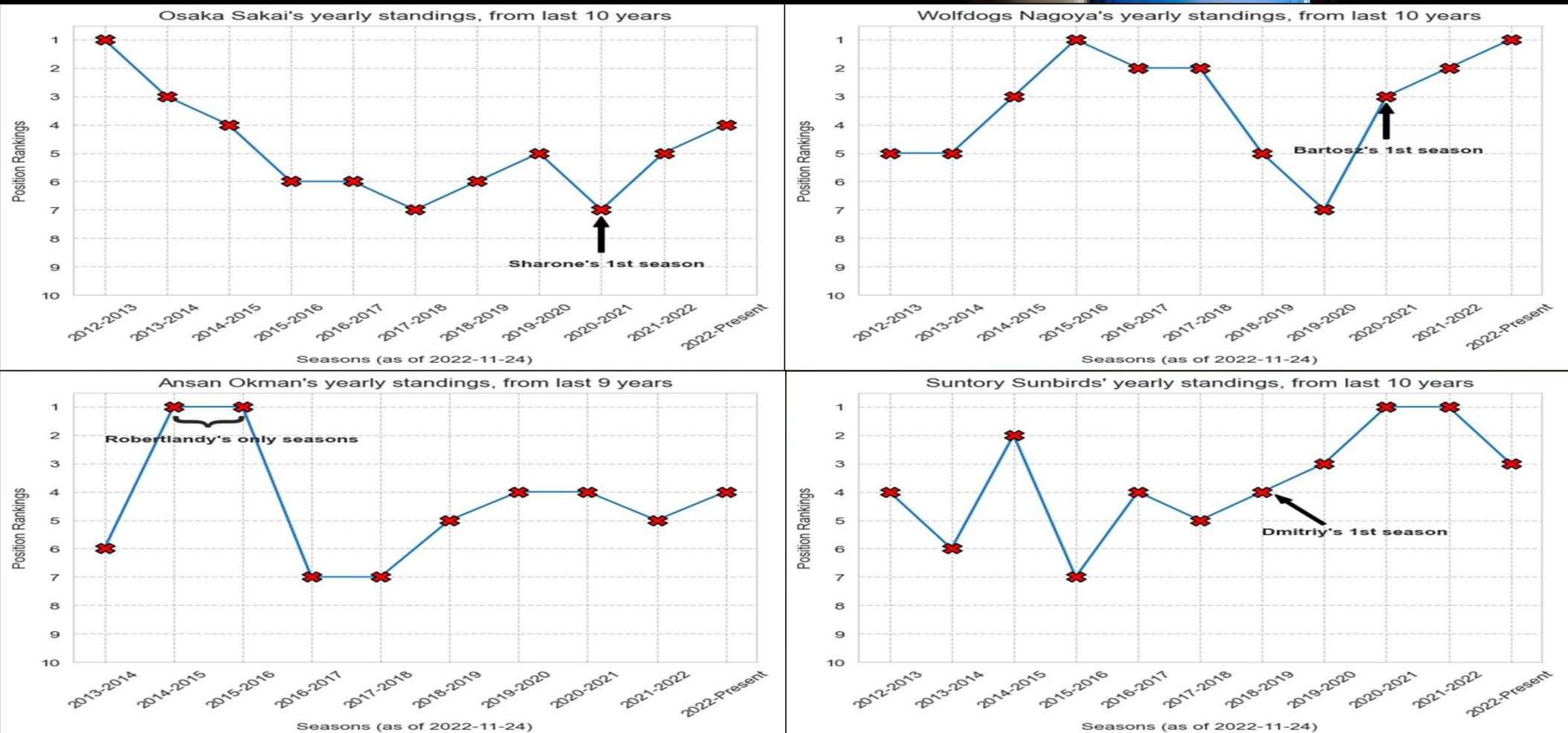


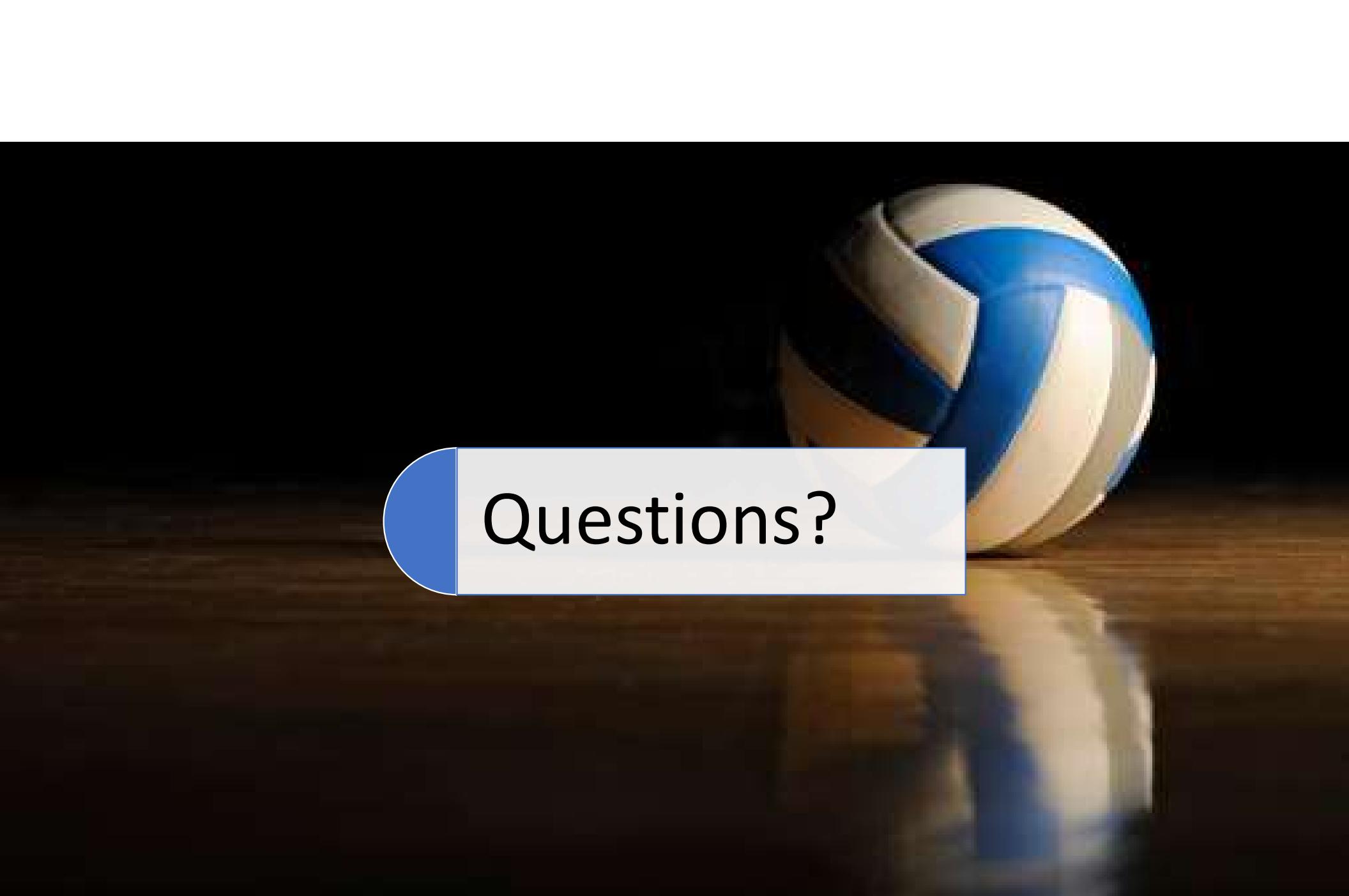
Recap

Recap



Recap

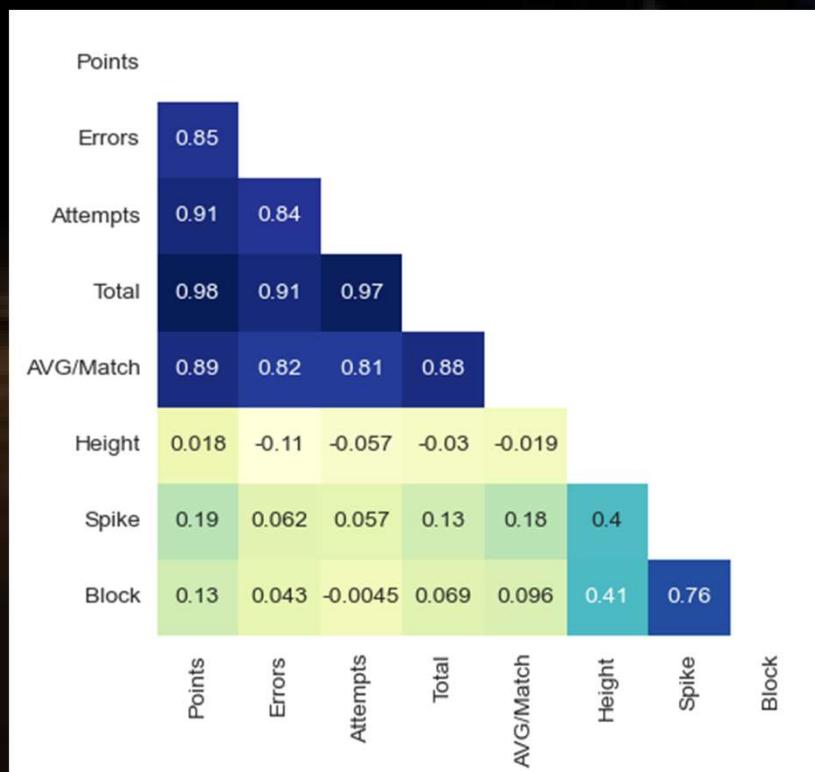




A soccer ball with blue and white panels is positioned on a dark, reflective surface, likely wood. The ball is angled towards the right, with a bright, multi-colored reflection of itself on the polished floor to its right. The background is dark and out of focus.

Questions?

Appendix



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