

Stick with Maths

Maths puzzles

Key Stage 2: Years 5-6

Sticker stats

Use these player stats to solve the following football puzzles.

The sticker features a central photo of Sergio Agüero in a Manchester City kit. Surrounding the photo are various statistics and icons, each with a callout label:

- Club:** Manchester City logo
- Seasons in the Premier League:** 94 (indicated by a yellow circle around the 4)
- Winner medals:** 2 (indicated by two footprints)
- Dominant foot:** Right (indicated by a right foot footprint)
- Nationality:** ARG (Argentina flag)
- Shirt number:** 10
- Height:** 1.73M
- Weight:** 70KG
- Player name:** SERGIO AGÜERO
- Player position:** Forward (indicated by a forward icon)
- Date of birth:** D.O.B. 02-06-88 | Buenos Aires
- Place of birth:** Buenos Aires

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Logical positions

Six players are lined up in the tunnel before a game like this:

- 1
- 2
- 3
- 4
- 5
- 6

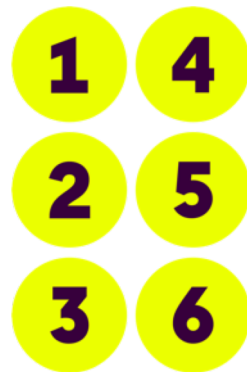
As the Match Day Commentator, use the clues on the following slide to identify the order the players will walk out of the tunnel for your announcement.



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Logical positions

- The player weighing more than 90kg is not next to a Crystal Palace player.
- The player who is older than 32 is between a player who does not play for Aston Villa and the player who is taller than 1.90m.
- The sixth player is not a defender or a forward.
- The player who is older than 32 is next to the player with a 'square number' on his shirt.



D.O.B. 22-04-87



D.O.B. 23-05-88



D.O.B. 19-11-92



D.O.B. 26-11-96



D.O.B. 23-07-92



D.O.B. 16-07-91

Car share

You are a Player Liaison Officer and have been asked to drive three goalkeepers to a training session. Disaster! You have a problem with your car suspension and can only take the two lightest goalies.

- Schmeichel and Krul together weigh 173kg.
- Krul and Ryan together weigh 166kg.
- Ryan and Schmeichel together weigh 171kg.

What is the weight of each player?

Who will be left behind?



Successful shots

As the Manager you want to buy a fantastic new goal scorer in the transfer window.

You watch some matches and notice that:

- Sterling scores $\frac{1}{2}$ of 12 attempts at goal.
- Maddison scores 20% of 25 shots.
- Mané scores 0.75 of 8 shots on goal.
- Kanté scores $\frac{1}{4}$ of 20 attempts.
- Wood scores 40% of 30 shots.
- Haller scores $\frac{2}{5}$ of 35 attempts.

You choose the tallest player – have you made the right choice?

WEST HAM UNITED
22
1.90M
82KG
1
FRA
SÉBASTIEN HALLER
D.O.B. 22-06-94 | Ris-Orangis, Paris

LIVERPOOL
10
1.75M
69KG
6
SEN
SADIO MANÉ
D.O.B. 10-04-92 | Sedhiou

MANCHESTER CITY
7
1.70M
69KG
9
ENG
RAHEEM STERLING
D.O.B. 08-12-94 | Kingston (Jamaica)

LEICESTER CITY FOOTBALL CLUB
10
1.75M
73KG
3
ENG
JAMES MADDISON
D.O.B. 23-11-96 | Coventry

CHelsea
7
1.68M
70KG
5
FRA
N'GOLO KANTÉ
D.O.B. 29-03-91 | Paris

HEART OF MIDlothian
9
1.91M
81KG
8
NZL
CHRIS WOOD
D.O.B. 07-12-91 | Auckland

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Player mascots

As the Kit Manager, you are organising the kits for the child mascots for these players at the next match.

Each child mascot is half the height and weight of the player they will walk out with.



Player card for Mat Ryan, a goalkeeper for Brighton. He is wearing a green kit with 'AMERICAN EXPRESS' on the front. The card shows a height of 1.84M and a weight of 82kg. He is 3 years old, from Australia (AUS), and has a Premier League badge.



Player card for Harry Maguire, a defender for Manchester United. He is wearing a red kit with 'CHEVROLET' on the front. The card shows a height of 1.94M and a weight of 100kg. He is 5 years old, from England (ENG), and has a Premier League badge.



Player card for Lucas Digne, a defender for Everton. He is wearing a blue kit. The card shows a height of 1.78M and a weight of 74kg. He is 2 years old, from France (FRA), and has a Premier League badge.



Player card for Todd Cantwell, a forward for Norwich City. He is wearing a yellow kit with 'errea' on the front. The card shows a height of 1.77M and a weight of 70kg. He is 1 year old, from England (ENG), and has a Premier League badge.



Player card for Nathan Aké, a defender for Aston Villa. He is wearing a red and black striped kit. The card shows a height of 1.80M and a weight of 75kg. He is 8 years old, from the Netherlands (NED), and has a Premier League badge.



Player card for Son Heung-min, a forward for Tottenham Hotspur. He is wearing a white kit with 'AIA' on the front. The card shows a height of 1.83M and a weight of 78kg. He is 5 years old, from South Korea (KOR), and has a Premier League badge.

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Player mascots

Remember that the mascots are half the height and weight of their player.

This particular mascot kit has been made for a player mascot who is:

- Taller than 90cm.
- Weighs less than 40kg.
- With a player who is older than 27.

Which player will be able to present their child mascot with this kit?



D.O.B. 08-04-92



D.O.B. 05-03-93



D.O.B. 20-07-93



D.O.B. 27-02-98



D.O.B. 18-02-95



D.O.B. 08-07-92

Slide 1 of 2 Defensive data

As a Scout you've been asked to identify two defenders for a club to approach in the transfer window. They've made the assumption that right footed defenders are the best option.



Player card for Nathan Aké. He is a right-footed defender (indicated by a right foot icon) from the Netherlands (NED). He is 1.80M tall and weighs 75KG. He is wearing a red and black striped jersey with the number 5. The card also shows a Premier League logo, a club crest, and a 'HG' (Home Goal) icon.

NATHAN AKÉ
D.O.B. 18-02-95 | Den Haag



Player card for Fabian Schär. He is a right-footed defender (indicated by a right foot icon) from Switzerland (SUI). He is 1.88M tall and weighs 84KG. He is wearing a black and white striped jersey with the number 5. The card also shows a Premier League logo, a club crest, and a 'HG' (Home Goal) icon.

FABIAN SCHÄR
D.O.B. 20-12-91 | Wil



Player card for Ryan Bertrand. He is a right-footed defender (indicated by a right foot icon) from England (ENG). He is 1.79M tall and weighs 85KG. He is wearing a red, white, and black jersey with the number 21. The card also shows a Premier League logo, a club crest, and a 'HG' (Home Goal) icon.

RYAN BERTRAND
D.O.B. 05-08-89 | Southwark



Player card for Angelo Ogbonna. He is a right-footed defender (indicated by a right foot icon) from Italy (ITA). He is 1.91M tall and weighs 86KG. He is wearing a light blue and maroon jersey with the number 21. The card also shows a Premier League logo, a club crest, and a 'HG' (Home Goal) icon.

ANGELO OGBONNA
D.O.B. 23-05-88 | Cassino



Player card for Willy Boly. He is a right-footed defender (indicated by a right foot icon) from France (FRA). He is 1.95M tall and weighs 97KG. He is wearing an orange jersey with the number 15. The card also shows a Premier League logo, a club crest, and a 'HG' (Home Goal) icon.

WILLY BOLY
D.O.B. 03-02-91 | Melun

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Defensive data

- Can you look at the tackle success rates and put the defenders in order of preference?
- Are your best options right footed players?

Tackle success rates:

- Aké = $\frac{2}{3}$
- Schär = 0.59
- Bertrand = 0.62
- Ogbonna = 70%
- Boly = $\frac{13}{20}$



Answers

Logical positions

A couple of the possible solutions:

- | | |
|--------------|-------------|
| 1. OGBONNA | 4. WESLEY |
| 2. LUIZ | 5. INGS |
| 3. TARKOWSKI | 6. TOWNSEND |

- | | |
|--------------|-------------|
| 1. WESLEY | 4. OGBONNA |
| 2. INGS | 5. LUIZ |
| 3. TARKOWSKI | 6. TOWNSEND |

Car Share

Kasper Schmeichel = 89kg

Tim Krul = 84kg

Mat Ryan = 82kg

Kasper Schmeichel would be left.

Successful shots

HALLER is the tallest but he only scored 2/5 out of 35 – although this is numerically 14, the highest, it is not the best performance.

MANÉ is the correct answer, with the highest success rate.

MANÉ: 0.75 of 8 shots = $\frac{3}{4} = 0.75 = 75\%$
(6 successful shots)

STERLING: $\frac{1}{2}$ of 12 shots = $\frac{1}{2} = 0.5 = 50\%$
(6 successful shots)

WOOD: 40% of 30 shots = $\frac{2}{5} = 0.4 = 40\%$
(12 successful shots)

HALLER: 2/5 of 35 attempts = $\frac{2}{5} = 0.4 = 40\%$
(14 successful shots)

KANTÉ: $\frac{1}{4}$ of 20 shots = $\frac{1}{4} = 0.25 = 25\%$
(5 successful shots)

MADDISON: 20% of 25 shots = $\frac{1}{5} = 0.2 = 20\%$
(5 successful shots)

Player mascot

The player mascot would be with Son Heung-Min

$\frac{1}{2}$ height = 91.5cm; $\frac{1}{2}$ weight = 39kg;
birth date 8/7/92 (**player was 27 in 2019**)

Defensive data

- OGBONNA** = 0.7 = **70%** (Left footed)
- AKÉ** = $\frac{2}{3} = 0.666 = 66.6\%$ (Left footed)
Both of the best options are in fact left footed in this example.
- BOLY** = $\frac{13}{20} = 0.65 = 65\%$ (Right footed)
- BERTRAND** = **0.62** = 62% Left footed)
- SCHÄR** = **0.59** = 59% (Right footed)