

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 light blue kit. To the left, a smaller version of the kit shows the number 10. To the right, there are icons for the Premier League, a '94' (representing 9 seasons and 4 medals), a footprint icon, the Argentine flag, and a star. At the bottom, the player's name 'SERGIO AGÜERO' is written in blue, with 'D.O.B. 02-06-88 | Buenos Aires' below it. A small green pitch icon is also present.

Club → Manchester City

Shirt number → 10

Height → 1.73M

Weight → 70KG

Seasons in the Premier League → 9

Winner medals → 4

Dominant foot → Right

Nationality → ARG

Player name → SERGIO AGÜERO

Date of birth → D.O.B. 02-06-88 | Buenos Aires

Player position → Striker

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

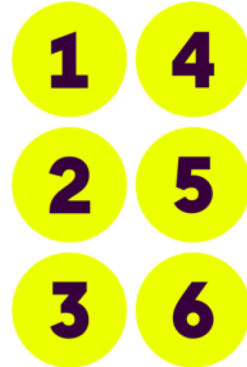
As the Match Day Commentator, use the clues on the following slide to identify the order the players will walk out of the tunnel for your announcement.



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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?



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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.



1
 1.84M
 82kg
 3
 AUS
MAT RYAN
 D.O.B. 08-04-92 | Plumpton



5
 1.94M
 100kg
 5
 ENG
HARRY MAGUIRE
 D.O.B. 05-03-93 | Sheffield



12
 1.78M
 74kg
 2
 FRA
LUCAS DIGNE
 D.O.B. 20-07-93 | Meaux



14
 1.77M
 70kg
 1
 ENG
TODD CANTWELL
 D.O.B. 27-02-98 | Dereham



5
 1.80M
 75kg
 8
 NED
NATHAN AKÉ
 D.O.B. 18-02-95 | Den Haag



7
 1.83M
 78kg
 5
 KOR
SON HEUNG-MIN
 D.O.B. 08-07-92 | Chuncheon

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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

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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)