

## GOAL'S PER 90 MINS

| Seasons | Apps | Goals | Mins/goal |
|---------|------|-------|-----------|
| 2003-04 | 40   | 6     | 392       |
| 2004-05 | 50   | 9     | 413       |
| 2005-06 | 47   | 12    | 284       |
| 2006-07 | 53   | 23    | 191       |
| 2007-08 | 49   | 42    | 98        |
| 2008-09 | 53   | 26    | 166       |
| 2021-22 | 38   | 24    | 133       |
| 2022-23 | 16   | 3     | 350       |

What is going on?

# What The Graph 30: teacher notes

## Notes/comments

- Very bizarre, error-filled graph from the Daily Telegraph.
- It shows the number of minute on the pitch for each goal Cristiano Ronaldo, while he played at Manchester United. (He left Man Utd in 2009 and returned in 2021, which is why there is a gap).
- 'Apps' is the number of Appearances.
- The title is wrong: it says 'Goals per game', whereas the graph actually shows the number of minutes for each goal he scored. (And there's an unnecessary apostrophe in the title too!)
- If Ronaldo played every minute of every game, we would expect the number of goals multiplied by the mins/goal to equal the number of appearances multiplied by 90 (because a football match is 90 mins long). The following slide has a table showing calculations related to this. (Students could create their own version in Excel.)
- The table perhaps shows why Ronaldo was getting frustrated at Man Utd in the season 2022-23 (he left the club in November 2022).

## Source:

- <https://www.telegraph.co.uk/football/2022/11/22/cristiano-ronaldo-leaves-manchester-united-live-updates-latest/>

|         | Apps | Goals | Mins/<br>goal | Apps x 90 | Goals x<br>Mins/Goal | Fraction of each game<br>played (on average) |
|---------|------|-------|---------------|-----------|----------------------|--|
| 2003-04 | 40   | 6     | 392           | 3600      | 2352                 | 0.65   |
| 2004-05 | 50   | 9     | 413           | 4500      | 3717                 | 0.83   |
| 2005-06 | 47   | 12    | 284           | 4230      | 3408                 | 0.81   |
| 2006-07 | 53   | 23    | 191           | 4770      | 4393                 | 0.92   |
| 2007-08 | 49   | 42    | 98            | 4410      | 4116                 | 0.93   |
| 2008-09 | 53   | 26    | 166           | 4770      | 4316                 | 0.90   |
| 2021-22 | 38   | 24    | 133           | 3420      | 3192                 | 0.93   |
| 2022-23 | 16   | 3     | 350           | 1440      | 1050                 | 0.73   |