

Challenge 115: Basketball League

Five schools take part in a basketball league where a team earns 2 points for a win, 1 point for a draw and no points if they lose. The final results table, after all teams have played each other once, is

| Team | Points |
|-----------|--------|
| Sunnydale | 7 |
| Rydell | 6 |
| Neptune | 4 |
| Chilton | 2 |
| Capeside | 1 |

Show that there must have been at least one draw.

What is the maximum number of draws that there could have been?

Can you work out what the results of all the matches must have been if there was just one draw?