

$$M = \left( \frac{x_1 + x_2}{2}, \frac{y_1 + y_2}{2} \right)$$

# Math League: the 14h week

## Maths and Football: A Winning Combination

—Is there anything better than football season? The excitement, skill, teamwork, and camaraderie what could enhance the thrill of football? even more

How about math?

.It might seem surprising, but math plays a huge role in football, often in ways you might not expect Let's explore how

Geometry is essential in football. It's all about shapes and their properties, which are crucial to understanding the game. The football pitch is a rectangle, and various strategies and positions on the field are based on geometric shapes and measurements

Angles play a critical role too. Players need to kick the ball at precise angles to control its direction and trajectory. Goalkeepers must also consider angles to effectively defend their goal. Coaches use angles to devise strategies and plan attacks

If  $\frac{(x - \sqrt{24})(\sqrt{75} + \sqrt{50})}{\sqrt{75} - \sqrt{50}} = 1$ ,

then the value of  $x$  is,

- a.  $3\sqrt{5}$
- b. 5
- c.  $\sqrt{5}$
- d.  $2\sqrt{5}$

Value of  $(3 + 2\sqrt{2})^{-2} + (3 - 2\sqrt{2})^{-2}$  is,

If  $\sqrt{4x+9} + \sqrt{4x+9} = 5 + \sqrt{7}$ ,  
find the value of  $x$ .

Statistics also play a crucial role in football. Coaches and managers closely monitor players' and opponents' stats to make strategic decisions. Whether it's calculating odds, probabilities, averages, or projections, a lot of math informs who plays and why. Even when you're setting up your fantasy team, you're engaging in math without realizing it!

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$