Spicy Question #31

A game is played at the school fair.

A bag contains 3 blue balls and some red balls.

A player randomly draws a ball from the bag. The ball is then returned to the bag along with another ball of the same colour.

The player then randomly draws another ball. This ball is then removed from the bag along with 2 more balls of the same colour.

The player randomly draws another ball.

If at any point the player draws a blue ball then they lose the game.

The probability that the player loses the game is 0.5

How many balls are in the bag at the start of the game?

Video Solution