

# 34

**Probability** We have two boxes, 50 black balls, and 50 white balls. First, we choose a box randomly. Then, we take a single random ball from the box. How should we place the balls in the boxes so as the probability of taking a black ball would be the highest possible?

**Answer format** Give four numbers separated with colons.

1<sup>st</sup> – number of black balls in the first box.

2<sup>nd</sup> – number of white balls in the first box.

3<sup>rd</sup> – number of black balls in the second box.

4<sup>th</sup> – number of white balls in the second box.

If the number of balls in each box is not equal, then assume that there are more balls in the second box.

**Example** 20:20:30:30