Main_12

There are 89 people in the room.

There are 12 months in a year.

Even distribution will garner 85 persons born in the same months.

Justification;

1. Assume the worst case scenario of an even distribution of 7 students assigned to each of the 12 months in a year. Using up 84 people. 5 persons remain.

2. This will ensure that the 85th student is assigned to a month that already has 7 students.

3. This **guarantees that 8 students** are born in the same month.

4. It is no **Guarantee** that the $86^{th}, 87^{th}$ or even then 89th person be born in the same month as the 85th.

5. We therefore **cannot guarantee** 9 people being born in the same month.

6. We can guarantee the largest value of 85 people born in the same month.

Answer: $n = 8$