Question #18984

From a group of 7 girls and 8 boys, how many committees of six each can be formed, involving (a) 3 girls, and 3 boys; (b)6 girls or 6 boys; (c) atleast 5 girls?

Answer:

a) Quantity of committees = $C_7^3 \times C_8^3 = 210 \times 1344 = 282240$
b) Quantity of committees = $C_7^6 + C_8^6 = 7 + 28 = 35$
c) Quantity of committees = $C_7^1 \times C_8^5 + C_8^6 = 99120 + 28 = 99148$