№2 | 67 и 58.

Нехай

$A = \{ x \geq 5 \}$

$$P(A) = \frac{n_A}{n_\Omega} = \frac{C_6^4 \cdot C_5^0 + C_6^3 \cdot C_5^1 + C_6^2 C_5^2}{C_{11}^4} =$$

$$= \frac{\frac{5 \cdot 6}{2} + \frac{4 \cdot 5 \cdot 6}{2 \cdot 3} \cdot 5 + \frac{5 \cdot 6}{2} \cdot \frac{5 \cdot 4}{2}}{\frac{11 \cdot 10 \cdot 9 \cdot 8}{4!}} = \frac{15 + 100 + 150}{330} =$$

$$= \frac{265}{330} = 0{,}803.$$

№3 | $\frac{2}{7} + \frac{2}{9} + \frac{5}{6}p + \frac{2}{9} + p = 1$

$$\frac{11}{6}p = 1 - \frac{2}{7} - \frac{4}{9}$$

$$p = \frac{17}{63} \cdot \frac{6}{11} = \frac{34}{231}$$

$$P\{2 > \xi > -2\} = P\{0\} + P\{1\} = \frac{1}{9} + \frac{85}{693} = \frac{18}{77} =$$

$$= 0{,}234.$$

№6 | $A = \{$отказ уст.$\}$

$A_i = \{$отказ i блока$\}$

№2 $A = (A_3 \cup A_5) A_1 (A_2 \cup A_4)$

$P(A) = P(A_1) \cdot P(A_2 \cup A_4) \cdot P(A_3 \cup A_5) = P_1 \cdot (P_2 + P_4 - P_2 \cdot P_4)(P_3 + P_5 - P_3 \cdot P_5) = 0{,}2 \cdot (0{,}1 + 0{,}1 - 0{,}01) \cdot (0{,}2 + 0{,}3 - 0{,}06) = 0{,}2 \cdot 0{,}19 \cdot 0{,}44 = 0{,}01672.$

№10 | 6б. и 4г.

Ничара

$A = \{ \text{г} < \text{б} \}$

$$P(A) = \frac{n_A}{n_\Omega} = \frac{C_4^0 \cdot C_6^4 + C_4^1 \cdot C_6^3}{C_{10}^4} = \frac{\frac{5 \cdot 6}{2} + \frac{4 \cdot 4 \cdot 5 \cdot 6}{6}}{\frac{7 \cdot 8 \cdot 9 \cdot 10}{4!}} =$$

$$= \frac{15 + 80}{210} = \frac{95}{210}$$

$n_A = 95$.