Практическое задание №1.

1.9.

$$C_{13}^{4} = \frac{13!}{4! \cdot 9!} = 715$$

$$C_{52}^{4} = \frac{52!}{48! \cdot 4!} = 49 \cdot 25 \cdot 27 \cdot 13$$

$$P = 0,002$$

1.6

$$C_{4}^{1} = \frac{4!}{3!} = 4$$

$$C_{48}^{3} = \frac{48!}{3! \cdot 45!} = \frac{46 \cdot 47 \cdot 48}{2 \cdot 3} = 16 \cdot 23 \cdot 47$$

$$C = 4 \cdot 16 \cdot 23 \cdot 47 = 69184$$

$$P = 0,16$$

2. $C_{10}^{3} = \frac{10!}{3! \cdot 7!} = 120$;

$P = \frac{1}{120}$;

3. $C_{9}^{3} = \frac{9!}{3! \cdot 6!} = 84$;

$C_{15}^{3} = \frac{15!}{3! \cdot 12!} = \frac{13 \cdot 7 \cdot 5}{1} = 455$

$P = \frac{84}{455}$

4. $C_{100}^{2} = \frac{100!}{2! \cdot 98!} = \frac{99 \cdot 100}{2} = 4950$

$C_{2}^{2} = \frac{2!}{2! \cdot 1!} = 1$

$P = \frac{1}{4950}$;