

Примеры рекуррентности.

№ 6.1.3

$$k=3, n=16$$

$$A_n^k = \frac{n!}{(n-k)!} = \frac{16!}{13!} = 16 \cdot 15 \cdot 14 = 3360$$

№ 6.1.4

$$k=2, n_1=12, n_2=16$$

$$D_{n_1}^1 = \frac{n_1!}{1!(n_1-1)!} = \frac{12!}{11!} = 12$$

$$D_{n_2}^2 = \frac{n_2!}{2!(n_2-2)!} = \frac{16!}{14! \cdot 1!} = \frac{15 \cdot 16}{2} = 120$$

$$D_{n_1}^2 = D_{n_2}^1 = 12 \cdot 120 = 1440$$

№ 6.1.5

$$k=3, n=6$$

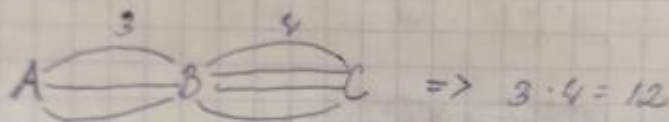
$$C_{n+k-1}^k = \frac{8!}{3! \cdot 5!} = 56$$

№ 6.1.6

$$k=3, n=7$$

$$C_{n+k-1}^k = C_9^3 = \frac{9!}{3! \cdot 6!} = \frac{7 \cdot 8 \cdot 9}{6} = 84$$

№ 6.1.7



№ 6.1.8

$$k=1, n=34$$

$$C_n^k = C_{34}^1 = \frac{34!}{1! \cdot 33!} = 34$$