

## S5E-18A

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1. (a) 3265920

(b)  $\frac{1}{720}$

(c)  $\frac{33}{56}$

(d)  $\frac{1}{15}$

2. 15

3.  $6! = 720$

4.  $C_2^6 = 15$

5.  $5! = 120$

6. (a)  $P_3^6 = 120$

(b)  $P_4^6 = 360$

(c)  $6! = 720$

7. (a)  $C_7^{16} = 11440$

(b)  $C_{10}^{16} = 8008$

8.  $36^6 - 26^6 = 1867866560$

9. (a)  $7! = 5040$

(b)  $6! = 720$

10.  $C_3^5 \times 4! \times 4! = 5760$

11.  $C_3^{12} = 220$

12. (a)  $C_1^{47} \times C_1^{52} = 2444$

(b)  $C_1^{10} \times C_1^{15} = 150$

(c)  $12 \times 9 + 10 \times 15 + 11 \times 11 + 14 \times 17 = 617$

(d)  $21 \times 25 \times 22 \times 31 = 358050$

13. (a)  $C_6^9 = 84$

(b)  $C_6^{12} = 924$

(c)  $C_3^9 \times C_2^6 \times C_1^{11} = 13860$

(d)  $C_2^7 \times C_4^{11} = 6930$

(e)  $C_6^9 + C_6^6 + C_6^{11} = 547$

14. (a)  $5! = 120$

(b)  $C_4^5 = 5$

(c)  $C_2^3 = 3$

15. (a)  $C_4^5 + C_4^8 = 75$

(b)  $C_4^{13} - C_4^5 = 710$

M.C.

1. B

2. A

3. C

4. B