

永中鍾定桐

DATE 2024

10

3, 19

NO.

三校数61

三校数作44

ex. 2 1~9 任选3个数字, 求选法 ✓

1) 三数相加为 even

3 even or 1 even 2 odd

$$\binom{4}{3} + \binom{4}{1} \binom{5}{2}$$

$$= 4 + 4 \binom{5}{2}$$

$$= 4 + 2 \cdot 2 \binom{5}{2}$$

$$= 4 + 2 \cdot 5 \binom{4}{1}$$

$$= 4 + 40$$

$$= 44 \#$$

2) 三数相乘为 even

1 even + 任意

$$\binom{4}{1} \binom{8}{2}$$

$$= 4 \cdot \binom{8}{2}$$

$$= 2 \cdot 2 \binom{8}{2}$$

$$= 2 \cdot 8 \binom{7}{1}$$

$$= 16 \cdot 7 = 112 \#$$

1 even + 2 even + 3 even

$$\binom{4}{1} \binom{5}{2} + \binom{4}{2} \binom{5}{1} + \binom{4}{3}$$

$$= 4 \cdot 10 + 6 \cdot 5 + 4$$

$$= 40 + 30 + 4$$

$$= 74 \#$$