

ex. 5 展开

1)  $(a+b+c)(a-b+c)$

$$= a^2 - \cancel{ab} + ac + \cancel{ba} - b^2 + \cancel{bc} + ca - \cancel{cb} + c^2$$

$$= a^2 - b^2 + c^2 + 2ac \#$$

2)  $(a+b+c)(a-b-c)$

$$= a^2 - \cancel{ab} - \cancel{ac} + \cancel{ba} - b^2 + \cancel{bc} + \cancel{ca} - \cancel{cb} - c^2$$

$$= a^2 - b^2 - c^2 \#$$

3)  $(x-2)(x+2)(x^2+4)$

$$= (x^2-4)(x^2+4)$$

$$= x^4 - 16 \#$$

4)  $(1+3x)(1-3x+9x^2)$

$$= 1 - \cancel{3x} + \cancel{9x^2} + \cancel{3x} - \cancel{9x^2} + 27x^3$$

$$= 27x^3 + 1 \#$$