

永中金重定期

DATE 2024

.10

.11

NO. 三校数 75

三校数 1256

ex. 4 calc value

1) 30.7×29.3

$$= (30 + 0.7)(30 - 0.7)$$

$$= 30^2 - (0.7)^2$$

$$= 900 - 0.49$$

$$= 899.51 \#$$

2) $18^3 + (-8)^3$

$$= 18^3 - 8^3$$

3) $(11.1)^2$

$$= (11 + 0.1)^2$$

$$= 121 + 2.2 + 0.01$$

$$= 123.201 \#$$

4) 98^2

$$= (100 - 2)^2$$

$$= 10000 - 400 + 4$$

$$= 9604 \#$$

5) $7^3 + 13^3$

$$= (7 + 13)(7^2 - 7 \cdot 13 + 13^2)$$

$$= 20(49 - 91 + 169)$$

$$= 20 \cdot 127$$

$$= 2540 \#$$

6) $(2\frac{5}{6})^2$

$$= (3 - \frac{1}{6})^2$$

$$= 9 - 1 + \frac{1}{36}$$

$$= 8\frac{1}{36} \#$$

7) $157^2 - 57^2$

$$= (157 - 57)(157 + 57)$$

$$= 100 \cdot 214$$

$$= 21400 \#$$

8) 97^3

$$= (100 - 3)^3$$

$$= 100^3 - 3 \cdot 100^2 \cdot 3$$

$$+ 3 \cdot 100 \cdot 3^2 - 3^3$$

$$= 1000000 - 90000$$

$$+ 2700 - 27$$

$$= 912673 \#$$

9) $(100\frac{1}{2})^3$

$$= (100 + \frac{1}{2})^3$$

$$= 100^3 + 3 \cdot 100^2 \cdot \frac{1}{2} + 3 \cdot 100 \cdot (\frac{1}{2})^2$$

$$+ (\frac{1}{2})^3$$

$$= 1000000 + 15000 + 75 + \frac{1}{8}$$

$$= 1015075\frac{1}{8} \#$$