

DATE 2024

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NO 三校教148  
三校教17109

永中鍾定柳

EX-2 化最簡根式

$$1) \sqrt[4]{1296}$$

$$= \sqrt[4]{2^4 \cdot 3^4}$$

$$= 6\sqrt[4]{6} \#$$

$$2) \sqrt[4]{1296}$$

$$= \sqrt[4]{2^4 \cdot 3^4}$$

$$= 6 \#$$

$$3) \sqrt[4]{5\frac{1}{16}}$$

$$= \sqrt[4]{\frac{81}{16}} = \frac{3}{2} \#$$

$$4) \sqrt[3]{\frac{5}{12}}$$

$$= \frac{\sqrt[3]{5}}{\sqrt[3]{12}} = \frac{\sqrt[3]{5 \cdot 12^2}}{12}$$

$$= \frac{2\sqrt[3]{90}}{12} = \frac{1}{6} \sqrt[3]{90} \#$$

$$5) \sqrt[3]{\frac{2}{9}} \times \sqrt[3]{\frac{243}{4}}$$

$$= \sqrt[3]{\frac{2 \cdot 243}{9 \cdot 4}} = \frac{3}{\sqrt[3]{2}}$$

$$= \frac{3\sqrt[3]{4}}{2} = \frac{3}{2} \sqrt[3]{4} \#$$

$$6) \sqrt[3]{\frac{2}{9}} - \sqrt[3]{\frac{3}{32}}$$

$$= \frac{\sqrt[3]{2 \cdot 81}}{9} - \frac{\sqrt[3]{3 \cdot 16}}{2 \cdot 4}$$

$$= \frac{\sqrt[3]{6}}{9} - \frac{2\sqrt[3]{6}}{8}$$

$$= \left(\frac{3}{9} - \frac{2}{8}\right) \sqrt[3]{6}$$

$$= \frac{1}{12} \sqrt[3]{6} = \frac{\sqrt[3]{6}}{12} \#$$