

A2.N.4: Operations with Irrational Expressions 2: Perform arithmetic operations on irrational expressions

1 Simplify: $\sqrt{5} \times \sqrt[3]{2} \times \sqrt[4]{4}$

2 Simplify: $3\sqrt{2} \div 2\sqrt[3]{3}$

3 Simplify: $(\sqrt{3} \times \sqrt[3]{2}) \div \sqrt[3]{6}$

4 Simplify: $\sqrt[3]{40} - \sqrt[3]{135}$

5 Simplify: $\frac{\sqrt{20} + \sqrt[4]{400}}{\sqrt{22\frac{1}{2}}}$

6 Simplify: $\sqrt{\frac{1}{8}} \times \sqrt[3]{\frac{1}{2}}$

7 Simplify: $\frac{\sqrt{12}}{\sqrt[3]{16}}$

8 Simplify: $\frac{3\sqrt{50} + \sqrt[4]{4} - 2\sqrt{\frac{1}{2}}}{\sqrt{18}}$

9 Simplify: $\sqrt{12} - \sqrt[4]{729} + \sqrt{\frac{1}{3}} + \sqrt{3}$

10 Simplify: $\sqrt[3]{81} + 2\sqrt[4]{\frac{25}{16}} - \sqrt[3]{192} + 2\sqrt{125}$

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Answer Section

1 ANS:

$$\sqrt[6]{4000}$$

REF: 019013al

2 ANS:

$$\sqrt[6]{\frac{81}{8}}$$

REF: 099511al

3 ANS:

$$\sqrt[6]{3}$$

REF: 090511al

4 ANS:

$$-\sqrt[3]{5}$$

REF: 019111al

5 ANS:

$$\frac{4\sqrt{2}}{3}$$

REF: 019309al

6 ANS:

$$\frac{\sqrt[6]{2}}{4}$$

REF: 069307al

7 ANS:

$$\frac{\sqrt[6]{432}}{2}$$

REF: 019713al

8 ANS:

$$5\sqrt{2}$$

REF: 099810al

9 ANS:

$$\frac{\sqrt{3}}{3}$$

REF: 030504al

10 ANS:

$$11\sqrt{5} - \sqrt[3]{3}$$

REF: 010610al