

A2.A.13: Simplifying Radicals 2: Simplify radical expressions

1 The expression $\sqrt[3]{64a^{16}}$ is equivalent to

- 1) $8a^4$
- 2) $8a^8$
- 3) $4a^5\sqrt[3]{a}$
- 4) $4a\sqrt[3]{a^5}$

2 Simplify: $\sqrt[3]{a^4b^3}$

3 Simplify: $\sqrt[3]{16a^4b^3}$

4 Simplify: $\sqrt[3]{56x^4y}$

5 Simplify: $\sqrt[3]{54a^7b^4}$

6 Simplify: $\sqrt[3]{81ab^4}$

7 Simplify: $2\sqrt[3]{16a^3b^4c^5}$

8 Express in simplest form: $\sqrt[3]{\frac{a^6b^9}{-64}}$

9 Simplify: $\sqrt[5]{-243a^6b^{12}}$

10 Simplify: $\sqrt[6]{8a^3b^6}$

11 Simplify: $\sqrt{\sqrt[3]{a^2}}$

A2.A.13: Simplifying Radicals 2: Simplify radical expressions**Answer Section**

1 ANS: 3

$$\sqrt[3]{4^3 a^{15}} = 4a^5 \sqrt[3]{a}$$

REF: 061204a2

2 ANS:

$$ab \sqrt[3]{a}$$

REF: 019615al

3 ANS:

$$2ab \sqrt[3]{2a}$$

REF: 089413al

4 ANS:

$$2x \sqrt[3]{7xy}$$

REF: 119313al

5 ANS:

$$3a^2 b \sqrt[3]{2ab}$$

REF: 019811al

6 ANS:

$$3b \sqrt[3]{3ab}$$

REF: 019713al

7 ANS:

$$4abc \sqrt[3]{2bc^2}$$

REF: 039807al

8 ANS:

$$-\frac{a^2 b^3}{4}$$

REF: 011231a2

9 ANS:

$$-3ab^2 \sqrt[5]{ab^2}$$

REF: 069108al

10 ANS:

$$b \sqrt[6]{8a^3}$$

REF: 069812al

11 ANS:

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

REF: 089603al