

Radicals - Simplifying, Multiplying, Dividing - Class Examples

Simplify.

1) $\sqrt{147}$

2) $\sqrt{150x^4}$

3) $\sqrt{200u^2v^3}$

4) $\sqrt[3]{189}$

5) $\sqrt[3]{256b^7}$

6) $\sqrt[3]{-24x^3y^4}$

7) $\sqrt{20} \cdot \sqrt{5}$

8) $\sqrt{55} \cdot \sqrt{35}$

9) $\sqrt{2n^2} \cdot \sqrt{10n^2}$

10) $-4\sqrt{5m} \cdot -4\sqrt{15m^2}$

11) $\sqrt[3]{-50x} \cdot \sqrt[3]{10x}$

12) $\sqrt[4]{2n^4} \cdot \sqrt[4]{2n}$

13) $\frac{\sqrt{5}}{\sqrt{16}}$

14) $\frac{\sqrt{25}}{5\sqrt{9}}$

15) $\frac{9\sqrt{10}}{\sqrt{6}}$

16) $\frac{3\sqrt{8}}{\sqrt{7}}$

17) $\frac{7}{\sqrt[3]{36}}$

18) $\frac{\sqrt{5x^2y}}{4\sqrt{2xy^2}}$

19) $\frac{\sqrt[3]{7}}{\sqrt[3]{40}}$

20) $\frac{\sqrt[4]{12a^3}}{\sqrt[4]{500a^3}}$

21) Pg. 371 #10-51

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Simplify.

1) $\sqrt{147}$
 $7\sqrt{3}$

2) $\sqrt{150x^4}$
 $5x^2\sqrt{6}$

3) $\sqrt{200u^2v^3}$
 $10uv\sqrt{2v}$

4) $\sqrt[3]{189}$
 $3\sqrt[3]{7}$

5) $\sqrt[3]{256b^7}$
 $4b^2\sqrt[3]{4b}$

6) $\sqrt[3]{-24x^3y^4}$
 $-2xy\sqrt[3]{3y}$

7) $\sqrt{20} \cdot \sqrt{5}$
 10

8) $\sqrt{55} \cdot \sqrt{35}$
 $5\sqrt{77}$

9) $\sqrt{2n^2} \cdot \sqrt{10n^2}$
 $2n^2\sqrt{5}$

10) $-4\sqrt{5m} \cdot -4\sqrt{15m^2}$
 $80m\sqrt{3m}$

$$11) \sqrt[3]{-50x} \cdot \sqrt[3]{10x}$$
$$-5\sqrt[3]{4x^2}$$

$$12) \sqrt[4]{2n^4} \cdot \sqrt[4]{2n}$$
$$n\sqrt[4]{4n}$$

$$13) \frac{\sqrt{5}}{\sqrt{16}}$$
$$\frac{\sqrt{5}}{4}$$

$$14) \frac{\sqrt{25}}{5\sqrt{9}}$$
$$\frac{1}{3}$$

$$15) \frac{9\sqrt{10}}{\sqrt{6}}$$
$$3\sqrt{15}$$

$$16) \frac{3\sqrt{8}}{\sqrt{7}}$$
$$\frac{6\sqrt{14}}{7}$$

$$17) \frac{7}{\sqrt[3]{36}}$$
$$\frac{7\sqrt[3]{6}}{6}$$

$$18) \frac{\sqrt{5x^2y}}{4\sqrt{2xy^2}}$$

$$19) \frac{\sqrt[3]{7}}{\sqrt[3]{40}}$$

$$20) \frac{\sqrt[4]{12a^3}}{\sqrt[4]{500a^3}}$$
$$\frac{\sqrt[4]{15}}{5}$$

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