

- 195** $\sqrt{40}$; $\sqrt{243}$; $\sqrt{125}$; $\sqrt[3]{16}$. $[2\sqrt{10}; 9\sqrt{3}; 5\sqrt{5}; 2\sqrt[3]{2}]$
- 196** $\sqrt[3]{96}$; $\sqrt[3]{81}$; $\sqrt[4]{320}$; $\sqrt[4]{243}$. $[2\sqrt[3]{12}; 3\sqrt[3]{3}; 2\sqrt[4]{20}; 3\sqrt[4]{3}]$
- 197** $\sqrt{\frac{3}{8}}$; $\sqrt{\frac{72}{25}}$; $\sqrt[3]{\frac{8}{81}}$; $\sqrt[3]{\frac{33}{160}}$. $[\frac{1}{2}\sqrt{\frac{3}{2}}; \frac{6}{5}\sqrt{2}; \frac{2}{3}\sqrt[3]{\frac{1}{3}}; \frac{1}{2}\sqrt[3]{\frac{33}{20}}]$
- 198** $\sqrt[3]{320}$; $\sqrt[3]{375}$; $\sqrt[4]{112}$; $\sqrt[4]{405}$. $[4\sqrt[3]{5}; 5\sqrt[3]{3}; 2\sqrt[4]{7}; 3\sqrt[4]{5}]$
- 199** $\sqrt{5a^8bc^2}$; $\sqrt[3]{6ab^3c^6}$; $\sqrt[4]{\frac{2}{81}x^{12}}$; $\sqrt{2a^2b}$. $[a^4c\sqrt{5b}; bc^2\sqrt[3]{6a}; \frac{1}{3}x^3\sqrt[4]{2}; a\sqrt{2b}]$
- 200** $\sqrt[3]{a^3+3a^2+3a+1}$; $\sqrt[3]{a^6(x-y)^3}$; $\sqrt[3]{3b^6}$. $[a+1; a^2(x-y); b^2\sqrt[3]{3}]$
- 201** $\sqrt{x^2+x^2y}$; $\sqrt{4+4b^2}$; $\sqrt{x^2y-3x^2}$. $[x\sqrt{1+y}; 2\sqrt{1+b^2}; x\sqrt{y-3}]$
- 202** $\sqrt{x^6-2x^3b^3+b^6}$; $\sqrt{\frac{3a^2-18a+27}{9b^2x}}$. $[x^3-b^3; \frac{a-3}{b}\sqrt{\frac{1}{3x}}]$
- 203** $\sqrt[4]{\frac{a+3}{(a-3)^5}}$; $\sqrt{8(x^5-6x^4+9x^3)}$. $[\frac{1}{a-3}\sqrt[4]{\frac{a+3}{a-3}}; 2x(x-3)\sqrt{2x}]$
- 204** $\sqrt[3]{\frac{4}{27}a^3b^6}$; $\sqrt[4]{(a^2-1)(a-1)^3}$. $[\frac{1}{3}ab^2\sqrt[3]{4}; (a-1)\sqrt[4]{a+1}]$
- 205** $\sqrt{4x-12b}$; $\sqrt[4]{b^4+b^4x}$; $\sqrt[3]{(2-x)^2a^6b}$. $[2\sqrt{x-3b}; b\sqrt[4]{1+x}; a^2\sqrt[3]{(2-x)^2b}]$
- 206** $\sqrt{a^2-\frac{1}{9}}$; $\sqrt{\frac{7a}{25b^2}}$; $\sqrt[4]{x^4+x^4b^2}$. $[\frac{1}{3}\sqrt{9a^2-1}; \frac{1}{5b}\sqrt{7a}; x\sqrt[4]{1+b^2}]$
- 207** $\sqrt{\frac{a^5x^3}{48}}$; $\sqrt[3]{\frac{a^4(x-1)^5}{27}}$. $[\frac{a^2x}{4}\sqrt{\frac{ax}{3}}; \frac{a(x-1)}{3}\sqrt[3]{a(x-1)^2}]$
- 208** $\sqrt[3]{\frac{54(2x+1)^4}{(x+3)^5}}$; $\sqrt{\frac{(x+2)^5x^3}{27}}$. $[\frac{3(2x+1)}{x+3}\sqrt[3]{\frac{2(2x+1)}{(x+3)^2}}; \frac{x(x+2)^2}{3}\sqrt{\frac{(x+2)x}{3}}]$
- 209** $\sqrt{\frac{80(a-2)^3a^4}{a^2-4}}$; $\sqrt{\frac{100x^3(x^2-1)^4}{(x-1)^3}}$. $[4a^2(a-2)\sqrt{\frac{5}{a+2}}; 10x(x+1)^2\sqrt{x(x-1)}]$
- 210** $\sqrt[3]{\frac{(a-1)^7a^4}{81}}$; $\sqrt{\frac{(x^2-2x)(x-2)^2}{(x^2-4x+4)^3}}$. $[\frac{a(a-1)^2}{3}\sqrt[3]{\frac{a(a-1)}{3}}; \frac{1}{x-2}\sqrt{\frac{x}{x-2}}]$
- 211** $\sqrt{\frac{(x^3+4x^2)^2}{(x^2-16)^3}}$; $\sqrt{\frac{18a^5(x+3)^3}{x^4}}$. $[\frac{x^2}{x-4}\sqrt{\frac{1}{x^2-16}}; \frac{3a^2(x+3)}{x^2}\sqrt{2a(x+3)}]$

Fattori trasportati fuori dal segno di radice e discussione

ESERCIZIO GUIDA

212 Trasportiamo fuori dal segno di radice tutti i fattori possibili nei seguenti radicali:

- a) $\sqrt{a^6b}$; b) $\sqrt[3]{125a^3b}$; c) $\sqrt[3]{8a^3b^3c^2}$; d) $\sqrt{2a^2-4a+2}$.