$$\sqrt{75}+3\sqrt{18}-2\sqrt{12}-2\sqrt{50}=$$

$$=5\sqrt{3}+9\sqrt{2}-4\sqrt{3}-10\sqrt{2}=$$

$$=\sqrt{3}-\sqrt{2}$$

$$3\sqrt{48}+2\sqrt{32}+\sqrt{98}-\left(4\sqrt{27}+\sqrt{450}\right)=$$

$$=3\sqrt{2^4\cdot 3}+2\sqrt{2^5}+\sqrt{7^2\cdot 2}-\left(4\sqrt{3^3}+\sqrt{5^2\cdot 3^2\cdot 2}\right)=$$

$$=\cancel{12\sqrt{3}}+\cancel{8\sqrt{2}}+\cancel{7\sqrt{2}}-\cancel{12\sqrt{3}}-\cancel{15\sqrt{2}}=0$$

$$\sqrt[3]{x^3-3x^2}\cdot\sqrt[3]{\frac{(x-3)^2}{x^5}}=\sqrt[3]{\cancel{x^2}(x-3)\frac{(x-3)^2}{x^{\cancel{5}\,3}}}=$$

$$=\sqrt[3]{\frac{(x-3)^3}{x^3}}=\frac{x-3}{x}$$

$$\sqrt{a^2-1/9}=\sqrt{\frac{9a^2-1}{9}}=\frac{1}{3}\sqrt{9a^2-1}$$

$$\sqrt[4]{\frac{x^3-2x^2}{16x-32}}=\sqrt[4]{\frac{x^2\cancel{(x-2)}}{16\cancel{(x-2)}}}=\sqrt[4]{\frac{x^2}{4^2}}=$$

$$=\sqrt{\frac{x}{4}}=\frac{\sqrt{x}}{\sqrt{4}}=\frac{\sqrt{x}}{2}=\frac{1}{2}\sqrt{x}$$

$$\sqrt{\frac{2xy}{x+1}} \qquad \sqrt[6]{\frac{xz}{2x-1}} \qquad \sqrt[4]{\frac{x^3y}{3}}$$

$$\sqrt[12]{\frac{2^6x^6y^6}{(x+1)^6}} \qquad \sqrt[12]{\frac{x^2z^2}{(2x-1)^2}} \qquad \sqrt[12]{\frac{x^9y^3}{3^3}}$$

$$\sqrt{(x^2-3^2)(x^2+3x)\,x^3} =$$

$$= \sqrt{(x-3)(x+3)\,x\,(x+3)\,x^3} =$$

$$= \sqrt{x^4(x+3)^2(x-3)} =$$

$$= x^2(x+3)\sqrt{x-3}$$

$$\sqrt{\frac{(1-x)^2\,4x}{(x^2-1)(x^2+x)}} = \sqrt{\frac{(1-x)^2\,4\cancel{x}}{(x-1)(x+1)\cancel{x}(x+1)}} =$$

$$= \sqrt{\frac{4(x-1)^2}{\cancel{(x-1)}(x+1)^2}} = \frac{2}{x+1}\sqrt{x-1}$$