

1. $\sqrt[4]{3^{16}} =$

2. $\sqrt[3]{\sqrt[4]{y^8}} =$

3. $\sqrt{\sqrt[3]{2}} =$

4. $\sqrt[4]{a^{4n}} =$

5. $\sqrt[3]{\sqrt[4]{\sqrt[5]{16}}} =$

6. $\sqrt{\sqrt{x^{12}}} =$

7. $\sqrt[3]{\sqrt[4]{2}} =$

8. $\sqrt[3]{(a-b)^6} =$

9. $\sqrt{\sqrt[3]{32}} =$

1. $\sqrt[4]{3^{16}} = 3^4 = 81$

2. $\sqrt[3]{\sqrt[4]{y^8}} = \sqrt[3]{y^2}$

3. $\sqrt{\sqrt[3]{2}} = \sqrt[6]{2}$

4. $\sqrt[4]{a^{4n}} = a^n$

5. $\sqrt[3]{\sqrt[5]{\sqrt[4]{16}}} = \sqrt[3]{\sqrt[5]{2}} = \sqrt[15]{2}$

6. $\sqrt{\sqrt{x^{12}}} = \sqrt[4]{x^{12}} = x^3$

7. $\sqrt[3]{\sqrt[4]{2}} = \sqrt[12]{2}$

8. $\sqrt[3]{(a-b)^6} = (a-b)^2$

9. $\sqrt{\sqrt[3]{32}} = \sqrt[6]{32} \quad (= \sqrt[6]{2^5})$