3) $(\sqrt[6]{9})$*-*3 =($9^{\frac{1}{6}}$)-3 = $9^{\frac{-3}{6}}=9^{\frac{-1}{2}}=\left(3^{2}\right)\frac{-1}{2}=3^{-1}=\frac{1}{3}$

4) $(\sqrt[8]{16})^{-4}=(16^{\frac{1}{8}})^{-4}=16^{\frac{-4}{8}}=16^{\frac{-1}{2}}=\left(4^{2}\right)\frac{-1}{2}=4^{-1 }= \frac{1}{4}$

5) $\sqrt[5]{\sqrt{1024}}=\sqrt[5]{\sqrt{2^{10}}}=\sqrt[5]{2^{\frac{10}{2}}}=\sqrt[5]{2^{5}}= 2^{\frac{5}{5}}=2^{1}=2$

6) $\sqrt[4]{\sqrt[3]{25}}\* \sqrt[6]{5^{5}}=\sqrt[4]{25^{\frac{1}{3}}}\* 5^{\frac{5}{6}}=\sqrt[4]{\left(5^{2}\right)^{\frac{1}{3}}}\* 5^{\frac{5}{6}}=\sqrt[4]{5^{\frac{2}{3}}}\* 5^{\frac{5}{6}}=\left(5^{\frac{2}{3}}\right)^{\frac{1}{4}}\* 5^{\frac{5}{6}}=5^{\frac{1}{6}}\* 5^{\frac{5}{6}}= 5^{\frac{1}{6}+\frac{5}{6}}=5^{1}$=5

7) $\frac{\sqrt[6]{3^{3}}\* \sqrt[6]{9^{2}}}{\sqrt[6]{3}}= \frac{3^{\frac{3}{6}}\* 9^{\frac{2}{6}}}{3^{\frac{1}{6}}}= \frac{3^{\frac{1}{2}}\*(3^{2})^{\frac{1}{3}}}{3^{\frac{1}{6}}}= \frac{3^{\frac{1}{2}}\* 3^{\frac{2}{3}}}{3^{\frac{1}{6}}}=3^{\frac{1}{2}+\frac{2}{3}-\frac{1}{6}}=3^{\frac{3}{6}+\frac{4}{6}-\frac{1}{6}}=3^{\frac{6}{6}}=3^{1}=3$