

Power of a power

Write each expression as a single power.

1. $(3^{-2})^{-3} = \underline{3^6}$

2. $(10^4)^3 = \underline{10^{12}}$

3. $(10^4)^{-2} = \underline{10^{-8}}$

4. $(10^3)^3 = \underline{10^9}$

5. $(10^{-3})^4 = \underline{10^{-12}}$

6. $(7^{-2})^4 = \underline{7^{-8}}$

7. $(2^{-3})^2 = \underline{2^{-6}}$

8. $(2^3)^{-4} = \underline{2^{-12}}$

9. $(5^{-3})^{-4} = \underline{5^{12}}$

10. $(5^4)^{-4} = \underline{5^{-16}}$

11. $(3^{-3})^3 = \underline{3^{-9}}$

12. $(6^{-2})^2 = \underline{6^{-4}}$