

Power of a power

Write each expression as a single power.

1. $(10^{-3})^{-2} = \underline{10^6}$

2. $(10^{-1})^4 = \underline{10^{-4}}$

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

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

5. $(7^5)^3 = \underline{7^{15}}$

6. $(5^5)^3 = \underline{5^{15}}$

7. $(4^3)^3 = \underline{4^9}$

8. $(6^{-1})^{-4} = \underline{6^4}$

9. $(3^{-3})^2 = \underline{3^{-6}}$

10. $(3^5)^4 = \underline{3^{20}}$

11. $(6^5)^2 = \underline{6^{10}}$

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