

DIRECTIONS: Simplify.

1. $(10^\pi)^2$

2. $(5^{-\pi})^{-1}$

3. $\sqrt{6^{2\pi}}$

4. $\sqrt[3]{46\pi}$

5. $\frac{10^{\sqrt{3}-2}}{10^{\sqrt{3}+2}}$

6. $\frac{6^{\sqrt{2}} * 6^{\sqrt{8}}}{6^{3\sqrt{2}}}$

7. $[(\sqrt{2})^\pi]^0$

8. $(\sqrt{3})^{\sqrt{2}}(\sqrt{3})^{-\sqrt{2}}$

9. $(2^{\sqrt{2}})^{-1}/\sqrt{2}$

10. $(\sqrt{2}^{\sqrt{2}})^{\sqrt{2}}$

11. $8^{1.2} * 2^{-3.6}$

12. $\frac{25^{2.4}}{5^{5.8}}$

13. $\frac{(1+\sqrt{3})^{\pi-1}}{(1+\sqrt{3})^{\pi+1}}$

14. $\frac{(\sqrt{2}-1)^{2+\pi}}{(\sqrt{2}-1)^\pi}$

15. $\sqrt[4]{\frac{9^{1-\pi}}{9^{1+\pi}}}$

16. $\sqrt{\frac{2^{\sqrt{3}+3}}{8}}$