



Use the law of exponents to rewrite each problem.

1) $2^1 = \underline{2}$

2) $9^1 = \underline{9}$

3) $9^8 \times 9^4 = \underline{9^{8+4}}$

4) $8^7 \times 8^{-4} = \underline{8^{7-4}}$

5) $4^{-6} = \underline{\frac{1}{4^6}}$

6) $(4^7)^4 = \underline{4^{7 \times 4}}$

7) $(\frac{1}{8})^8 = \underline{\frac{1}{8^8}}$

8) $5^1 = \underline{5}$

9) $(4 \times 5)^5 = \underline{4^5 \times 5^5}$

10) $(9^2)^2 = \underline{9^{2 \times 2}}$

11) $(4^3)^4 = \underline{4^{3 \times 4}}$

12) $4^3 \times 4^{-5} = \underline{4^{3-5}}$

13) $8^0 = \underline{1}$

14) $(5 \times 6)^5 = \underline{5^5 \times 6^5}$

15) $5^9 \times 5^6 = \underline{5^{9+6}}$

16) $3^0 = \underline{1}$

17) $(9 \times 5)^3 = \underline{9^3 \times 5^3}$

18) $9^0 = \underline{1}$

19) $8^3 \times 8^3 = \underline{8^{3+3}}$

20) $(\frac{1}{3})^5 = \underline{\frac{1}{3^5}}$

Answers

1. $\underline{2}$

2. $\underline{9}$

3. $\underline{9^{8+4}}$

4. $\underline{8^{7-4}}$

5. $\underline{\frac{1}{4^6}}$

6. $\underline{4^{7 \times 4}}$

7. $\underline{\frac{1}{8^8}}$

8. $\underline{5}$

9. $\underline{4^5 \times 5^5}$

10. $\underline{9^{2 \times 2}}$

11. $\underline{4^{3 \times 4}}$

12. $\underline{4^{3-5}}$

13. $\underline{1}$

14. $\underline{5^5 \times 6^5}$

15. $\underline{5^{9+6}}$

16. $\underline{1}$

17. $\underline{9^3 \times 5^3}$

18. $\underline{1}$

19. $\underline{8^{3+3}}$

20. $\underline{\frac{1}{3^5}}$