Rewriting Using the Laws of Exponents Name: **Answer Key**

Use the law of exponents to rewrite each problem.

1) $(\frac{1}{6})^5 =$ $\frac{1}{6^5}$

2) $5^1 =$ 5

3) $(4 \times 2)^9 =$ $4^9 \times 2^9$

4) $(5 \times 3)^7 =$ $5^7 \times 3^7$

5) $(4^2)^8 =$ $4^{2 \times 8}$

6) $2^0 =$ 1

7) $(\frac{1}{5})^8 =$ $\frac{1}{5^8}$

8) $3^0 =$ 1

9) $3^{-7} =$ $\frac{1}{3^7}$

10) $(5^9)^2 =$ $5^{9 \times 2}$

11) $6^1 =$ 6

12) $3^{-8} =$ $\frac{1}{3^8}$

13) $4^8 \times 4^{-4} =$ $4^{8 - 4}$

14) $3^8 \times 3^{-6} =$ $3^{8 - 6}$

15) $2^{-6} =$ $\frac{1}{2^6}$

16) $4^1 =$ 4

17) $4^9 \times 4^5 =$ $4^{9 + 5}$

18) $(\frac{1}{8})^3 =$ $\frac{1}{8^3}$

19) $5^2 \times 5^8 =$ $5^{2 + 8}$

20) $2^0 =$ 1

Answers

1. $\frac{1}{6^5}$
2. 5
3. $4^9 \times 2^9$
4. $5^7 \times 3^7$
5. $4^{2 \times 8}$
6. 1
7. $\frac{1}{5^8}$
8. 1
9. $\frac{1}{3^7}$
10. $5^{9 \times 2}$
11. 6
12. $\frac{1}{3^8}$
13. $4^{8 - 4}$
14. $3^{8 - 6}$
15. $\frac{1}{2^6}$
16. 4
17. $4^{9 + 5}$
18. $\frac{1}{8^3}$
19. $5^{2 + 8}$
20. 1

1-10	95	90	85	80	75	70	65	60	55	50
11-20	45	40	35	30	25	20	15	10	5	0