

NAME: _____

DATE: _____

QUIZ - LAWS OF EXPONENTS

PERIOD: _____

Write each expression below as a positive exponent. Show all work. Circle your final answer.

1. $2^2 \cdot 2^{10}$

2. 5^{-5}

3. $10^8 \div 10^3$

4. $\frac{15^4}{15^9}$

5. $(x^4)^5$

6. $7x^0$

Apply the appropriate rule, then write each expression as an integer or a fraction. Show all work. Circle your final answer.

7. $\frac{5^8}{5^6}$

8. $3^6 \div 3^2$

9. $7^6 \cdot 7^{-4}$

10. $2^7 \div 2^{10}$

11. $\frac{(-2)^4}{(-2)^2}$

12. $4^{-3} \cdot 4^3$

Write each expression using a single exponent. Show all work. Circle your final answer.

13. $5 \cdot 5^2$

14. $9^5 \cdot 9 \cdot 9^3$

15. $(5^2)^5$

16. $6^7 \div 6^5$

17. $(3^2)^3 \cdot 3^4$

18. $12^3 \div 12^3$

19. $\frac{6^2 \cdot 6^5}{6^4}$

20. $(3^5)^4 \div 3^{11}$