Powers and Exponent laws   ALL QUESTIONS

Simplify each of the following

1) $201^6 \times 201^3$ 2) $9^{18} \div 9^{12}$ 3) $6^8 \times 6^{15} \div 6^7$ 4) $(-7)^{11} \div (-7)^4 \times (-7)^5$

5) $\dfrac{3^{13} \times 3^{11}}{3^{20}}$ 6) $\dfrac{10^{11}}{10^6} \times 10^2$ 7) $2 \times 2^5 \times 2 \times 2^3 + 3^7 \times 3^{11} \div 3^2 \times 3$

For each of the following questions SIMPLIFY then evaluate

1) $7^{12} \times 7 \div 7^9 + 7^4$ 2) $\dfrac{10^{15} \times 10^2}{10^8}$ 3) $3^{27} \div 3^{22} - 3^2 \times 3$

4) $-2^9 \times 2^{11} \div 2^6 - 2^7 + 5$ 5) $4^3 (4^{12} \div 4^7) + 4^2$ 6) $(-5)^9 \div (-5)^6 \times (-5)^1 + (-5)^{10} \div (-5^9)$

Math 9

Date_____ Period

...vs of Exponents

...mplify. Your answer should contain only one base.

1) $\left[2^2 \times \left(2^2\right)^3\right]^2$

2) $\left[6^3 \times 6^3 \times 6^2\right]^2$

3) $5^3 \times 5^2 \times \left(5^0\right)^3$

4) $6 \times \left(6^2\right)^3$

5) $\left(4^3\right)^2 \times 4^2$

6) $6 \times \left(6^3\right)^2$

7) $\dfrac{3^3 \times 3^3}{3^3}$

8) $\dfrac{2^0 \times 2^3}{2^2}$

9) $\dfrac{6 \times 6^2}{6}$

10) $\dfrac{4 \times 4^3}{4^2 \times 4^2}$

11) $\dfrac{6^2 \times 6^0}{6^2}$

12) $\dfrac{3^2}{3 \times 3^0}$

13) $\left(\dfrac{5}{5^3}\right)^3$

14) $\dfrac{6^3}{6^3}$

15) $\left(\dfrac{5^2}{5^3}\right)^0$

16) $\left[\dfrac{4^2}{\left(4^0\right)^2}\right]^3$

17) $\left(\dfrac{4^3}{4^2}\right)^3$

18) $\dfrac{\left(2^3\right)^2}{2}$

19) $\dfrac{\left(3^2\right)^3}{3^2 \times 3^3}$

20) $\dfrac{4^3 \times \left(4^2\right)^2}{4^2}$

21) $\dfrac{\left(2^2\right)^2}{2 \times 2^2}$

22) $\dfrac{\left(5^3 \times 5^2\right)^2}{5}$

23) $\dfrac{6^3 \times \left(6^3\right)^3}{6^0}$

24) $\dfrac{\left[2 \times \left(2^3\right)^0 \times \left(2^3\right)^2\right]^3}{2^0}$

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