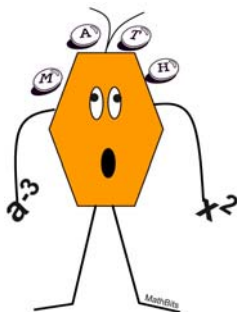




# Exponents

Name \_\_\_\_\_

*Directions:* Choose the correct letter answer to each question. Use the letters to decode the hidden message. Remember to use the properties of exponents as you work.



$\frac{3}{5}$     $\frac{16}{1}$     $\frac{10}{13}$     $\frac{15}{14}$     $\frac{16}{16}$     $\frac{4}{9}$     $\frac{13}{16}$   
 $\frac{5}{15}$     $\frac{14}{16}$     $\frac{1}{8}$     $\frac{2}{12}$     $\frac{14}{9}$     $\frac{2}{2}$   
 $\frac{6}{8}$     $\frac{16}{16}$     $\frac{8}{8}$     $\frac{2}{7}$     $\frac{14}{2}$     $\frac{11}{11}$  !

1. Which choice is equivalent to  $3^2 \times 3^{-5}$ ?  
 E.  $3^{-3}$    F.  $\frac{1}{3^3}$    G.  $\frac{1}{27}$    H. All choices

2. Which choice is equivalent to  $\frac{3^3}{6^2}$ ?  
 A.  $\frac{9}{36}$    R.  $\frac{3}{4}$    Q.  $\frac{3}{2}$    R.  $\frac{1}{4}$

3. Which choice is NOT equivalent to  $\frac{3^2}{3^5}$ ?  
 D.  $3^{-3}$    S.  $\frac{1}{3^3}$    M.  $\frac{1}{9}$    H.  $\frac{1}{27}$

4. Which choice is equivalent to  $7^0$ ?  
 D. 1   E.  $\frac{7^2}{7^2}$    C.  $\frac{49}{49}$    J. All choices

5. Which choice is equivalent to  $8^{-2}$ ?  
 R. 64   S. -64   A.  $\frac{1}{64}$    T.  $-\frac{1}{64}$

6. Which choice is equivalent to  $(4^2)(4^3)$ ?  
 B.  $4^6$    L.  $4^5$    I. 64   P. 16

7. Which choice is equivalent to  $(3^2)^3$ ?  
 U.  $3^5$    W.  $3^6$    I.  $3^9$    S. None

8. Which choice is equivalent to  $4^0 \times 4^{-1}$ ?  
 C. 0   D. 1   E.  $\frac{1}{4}$    F. 4

9. Which choice is equivalent to  $\frac{(2^4)^3}{(2^7)(2^5)}$ ?  
 U. 1   V.  $\frac{1}{2^5}$    X.  $\frac{1}{2^7}$    Y.  $\frac{1}{2}$

10. Which choice is equivalent to  $(3^2)^{-1}$ ?  
 J.  $3^2$    K.  $3^1$    I.  $3^{-2}$    P.  $3^{-1}$

11. Which choice is equivalent to  $1^{98}$ ?  
 C. 0   D. 1   E. 98   F. -1

12. Which choice is equivalent to  $y^{10} \div y^5$ ?  
 E.  $y^2$    F.  $y^5$    G.  $y^{10}$    H. None

13. Which choice is equivalent to  $8^{-2} \times 8^4$ ?  
 P. -64   Q.  $8^{-8}$    R.  $8^{-6}$    S. 64

14. Which choice is equivalent to  $2^{-3} \times 3^{-2}$ ?  
 P.  $6^{-5}$    B.  $6^6$    O.  $\frac{1}{72}$    T. -72

15. Which choice is equivalent to 1?  
 G.  $\frac{3^2}{3^2}$    L.  $3^{2-2}$    M.  $3^0$    N. All choices

16. Which choice is equivalent to  $\left(\frac{1}{2}\right)^{-1}$ ?  
 C.  $\frac{1}{2}$    A.  $\frac{1}{4}$    T. 2   S. 4