



# Puzzle Time

## Why Did The Mother Skunk Take Her Baby To See The Doctor?

Write the letter of each answer in the box containing the exercise number.

**Rewrite the expression in rational exponent form.**

1.  $\sqrt{8}$                       2.  $\sqrt[6]{43}$   
 3.  $(\sqrt[3]{9})^5$                     4.  $(\sqrt[7]{-51})^{11}$

**Rewrite the expression in radical form.**

5.  $19^{1/4}$                       6.  $802^{1/7}$   
 7.  $(-12)^{2/5}$                     8.  $16^{3/2}$

**Evaluate the expression.**

9.  $\sqrt[3]{125}$                     10.  $\sqrt[5]{-32}$                     11.  $243^{1/5}$   
 12.  $(512)^{1/3}$                     13.  $64^{5/6}$                     14.  $(256)^{3/4}$   
 15.  $(-128)^{5/7}$                     16.  $(-125)^{4/3}$                     17.  $(\frac{1}{64})^{5/6}$   
 18.  $(\frac{16}{625})^{3/4}$                     19.  $(343)^{-2/3}$                     20.  $\frac{1}{81^{1/4}}$   
 21. The volume of a number cube is  $3^6$  cubic millimeters.  
 Find the length of one side of the number cube.

**Answers**

O. 64                              S.  $(\sqrt{16})^3$   
 E.  $(-51)^{11/7}$                     C.  $\frac{1}{32}$   
 W. 8                                U.  $9^{5/3}$   
 I.  $\frac{1}{49}$                               O. 625  
 U.  $(\sqrt[5]{-12})^2$                     B. -2  
 A.  $8^{1/2}$                             F. 32  
 O.  $\frac{8}{125}$                             T.  $43^{1/6}$   
 E. 5                                 S. -32  
 R.  $\frac{1}{3}$                                 D. 9  
 T.  $\sqrt[4]{19}$                          A.  $\sqrt[7]{802}$   
 O. 3

10	4	17	6	3	15	9		19	5		12	1	8	
16	7	2		18	13		14	21	11	20				