

What Did Zero Say to Eight?

For each set of exercises, there is one extra answer. Write the letter of this answer in the corresponding box at the right. (Some answers are rounded.)

5	3	7	1	8	4	6	2
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1 Write the expression in exponential form.

a. $x \cdot x \cdot x \cdot x \cdot x$ **P** $5x^3$
O x^9

b. x to the ninth power **J** $(5x)^3$

c. $5 \cdot x \cdot x \cdot x$ **E** $5x^5$

d. $5x \cdot 5x \cdot 5x$ **V** x^5

5 Evaluate for the given values of the variables.

a. $(5w)^2$ for $w = 4$ **N** 1648
P 1

b. $(x + y)^3$ for $x = 10, y = 3$ **S** 400

c. $a^2 \cdot b^5$ for $a = 7, b = 2$ **R** 1568

d. $(m - n)^8$ for $m = 6, n = 5$ **T** 2197

2 Write the expression in exponential form.

a. n squared **D** n^3
Y $(7n)^4$

b. n cubed **T** $4n^7$

c. $7 \cdot n \cdot n \cdot n \cdot n$ **I** n^2

d. $7n \cdot 7n \cdot 7n \cdot 7n$ **R** $7n^4$

6 Evaluate for the given value of the variable.

a. $y^3 - 8$ for $y = 5$ **R** $\frac{9}{16}$
E 117

b. $(\frac{3}{4})^u$ for $u = 2$ **A** $\frac{1}{8}$

c. q^1 for $q = 17$ **N** 17

d. $(\frac{1}{2})^n$ for $n = 3$ **L** $\frac{3}{8}$

3 Evaluate the power.

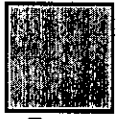
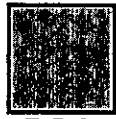
a. 11^2 **O** 100,000
T 121

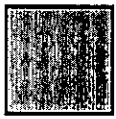

b. 2^7 **I** 10,000

c. 3^4 **U** 81

d. 10^5 **A** 128

7 Find the area of the square.

a.  5 cm b.  3.5 ft **D** 12.3 ft²
R 84.6 cm²

c.  9.2 cm d.  14 ft **C** 216 ft²
F 196 ft²
T 25 cm²

4 Evaluate for the given value of the variable.

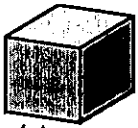
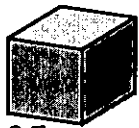
a. 4^e for $e = 3$ **G** 64
E 492

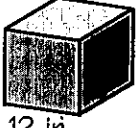
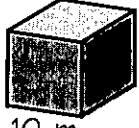
b. p^2 for $p = 15$ **L** 512

c. 5^x for $x = 4$ **P** 225

d. d^3 for $d = 8$ **C** 625

8 Find the volume of the cube.

a.  4 in. b.  2.5 m **T** 1728 in.³
B 1618 in.³

c.  12 in. d.  10 m **D** 64 in.³
M 1000 m³
S 15.6 m³