

1. Write each product using exponent

a. $4 \times 4 \times 4$

$$4^3$$

b. $0.4 \times 0.4 \times 0.4 \times 0.4 \times 0.4$

$$(0.4)^5$$

2. Write 5^3 as a product of the same factor, then find its value

$$\begin{aligned} &5 \times 5 \times 5 \\ &= 25 \times 5 \\ &= 125 \end{aligned}$$

PEMDAS

"Left to right"

3. Find the value of each expression

a. $5 - 4 \times (12 - 13)$

"P" → $5 - (-4)$
"M" → $5 + 4$
"_" "x" "-" = +
 $= 9$

b. $40 \div 2^3 \times 3^2$

$40 \div 8 \times 9$
 $5 \times 9 = 45$

$5 - 4(-2)$
 $5 + 8 = 13$

4. Evaluate each expression if $a = 2$ and $b = 3$

a. $2a \cdot 7b$

$$= 2(2) \cdot 7(3)$$
$$= 4 \cdot 21$$
$$= 84$$

b. $ab \div 6$

$$\frac{(2)(3)}{6} = \frac{6}{6} = 1$$

$6 \div 6 = 1$

c. $a^2 \cdot b^2$

$$2^2 \cdot 3^2 = 4 \cdot 9 = 36$$

5. Define a variable. Then write each phrase as an algebraic expression

a. four less cookies than are in the jar

$$j - 4$$

$j =$ number
of
~~jar~~
cookies

b. 3 times the minutes spent exercising

$$3m$$

$m =$ minutes
spent
exercising.