

How could we solve (two ways)

$$a. 2^x \cdot 2^3 = 2^7 ?$$

$$\frac{300}{10} = 30 \quad 2^{x+3} = 2^7$$

$$\frac{30 \cdot \cancel{10}}{\cancel{10}} = 30 \quad \begin{array}{r} x+3 = 7 \\ -3 \quad -3 \\ \hline x = 4 \end{array}$$

$$\frac{2^x \cdot \cancel{8}}{\cancel{8}} = \frac{128}{8}$$

$$2^x = 16$$

$$2^4 = 16$$

$$x = 4$$

$$b. 2^x \cdot 2^4 = 2^6$$

$$\underline{2^{x+4}} = \underline{2^6}$$

$$\begin{array}{r} x+4 = 6 \\ -4 \quad -4 \\ \hline x = 2 \end{array}$$

Simplify.

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(19-47) odd

$$\begin{aligned}
 \text{a. } & (-2c^2)(3c^3) \\
 & -2 \cdot c^2 \cdot 3 \cdot c^3 \\
 & (-2 \cdot 3)(c^2 \cdot c^3) \\
 & -6c^5
 \end{aligned}$$

$$\begin{aligned}
 \text{b. } & (5t^1)(-30t^2) && t \cdot t^2 = t \cdot tt \\
 & 5(-30) t^{1+2} \\
 & -150 t^3
 \end{aligned}$$

$$\begin{aligned}
 \text{c. } & (8xy)(-10y)(-2yz^2) \\
 & 8 \cdot 10 \cdot 2 x^1 y^1 y^1 z^2 \\
 & = 160xy^3z^2
 \end{aligned}$$

even# $\ominus \rightarrow +$
 odd# $\ominus \rightarrow -$

$$\begin{aligned}
 \text{d. } & (+3a^2b)(-5ab^2c^3)(4a^3b^2c) \\
 & -60a^2a^1a^3b^1b^2b^2c^3c^1 \\
 & -60a^6b^5c^4
 \end{aligned}$$