

**Polynomials****Multiplying Exponents**

$$\text{Rule: } x^a \cdot x^b = x^{a+b} \quad \text{Example: } a^4 \cdot a^3 = a^7$$

Multiply the polynomials.

1.  $c \cdot c^2 \cdot c^3 =$

2.  $e \cdot e^2 \cdot e^3 \cdot e^4 \cdot e^5 =$

3.  $a^3 \cdot a^4 \cdot a^7 \cdot a =$

4.  $(3xy^2)(2x^2y^3) =$

5.  $(2a^2b)(4ab^2) =$

6.  $(5f)(-3f^3)(2f) =$

7.  $(m^2n)(4mn^2)(mn) =$

8.  $(4k^2)(-3k)(3k^5) =$

9.  $(-2c^4)(4cd)(-cd^2) =$

10.  $(3x^3)(3x^4)(-3x^2) =$

11.  $(-1)(x)(-x^2)(x^3)(-x^2) =$

12.  $(3x^2)(-3x^5) =$

13.  $(c^2h)(3ch^3)(2c^3h^4) =$

14.  $(-4p^3)(-4p^6)(-2p^9) =$

15.  $(12c^3)(2g^3)(4ch) =$

16.  $(4x^2y^3)(x^3y)(-x^2y^2) =$

17.  $(-4f^3)(-3m^3) =$

18.  $(2c^2d^2)(-5cd^4) =$

19.  $(4c^2)(-5c^7) =$

20.  $(3x)(-4y^2)(6x^3y) =$

# Why Is A Lame Elephant Like Adding 19 And 4?

Find the simplest form for any expression below in the corresponding answer column. (Some of the expressions cannot be simplified.) The letter of the exercise goes in the box that contains the number of the answer. Keep working and you will get the answer to the title question.

Ⓓ  $x^2 \cdot x^4$

Ⓔ  $x^3 \cdot x^7$

Ⓕ  $x^2 \cdot x$

Ⓖ  $2x^4 \cdot x^3$

Ⓐ  $3x^2 \cdot 2x$

Ⓝ  $x^2 \cdot y^3$

Ⓔ  $x^2 + x^5$

Ⓘ  $2x^7$

Ⓒ  $x^2 + x^5$

Ⓛ  $x^6$

Ⓜ  $6x^3$

Ⓜ  $x^3$

Ⓛ  $x^2y^3$

Ⓛ  $x^{10}$

Ⓦ  $(4n^3t^2)(3n^2t^4)$

Ⓓ  $(-2n^2t^5)(4nt)$

ⓗ  $(2n^4t^2)(nt^2)$

Ⓔ  $(-n^3t)(-8n^2t^2)$

Ⓝ  $(4n^6t)(-3nt^3)$

Ⓣ  $(t^2)(2nt)$

Ⓡ  $(-n^2t)(8t^3)$

Ⓒ  $8n^5t^3$

Ⓖ  $12n^5t^6$

Ⓛ  $-8n^2t^4$

Ⓛ  $-12n^7t^4$

Ⓖ  $2nt^3$

Ⓛ  $-8n^3t^6$

Ⓛ  $2n^5t^4$

Ⓤ  $(3v^2)(4v^5)$

Ⓞ  $(-2v^3)(5v^2)$

Ⓢ  $(9v^4)(-2v)$

Ⓐ  $(-6v)(-3v)$

Ⓡ  $(2v^2)(7v)$

Ⓔ  $2v^2 + 7v$

ⓗ  $(2v^2)(7k)$

Ⓒ  $-10v^5$

Ⓛ  $18v^2$

Ⓒ  $2v^2 + 7v$

Ⓖ  $-18v^5$

Ⓒ  $12v^7$

Ⓓ  $14v^2k$

Ⓒ  $14v^3$

Ⓔ  $a^4 \cdot a^6$

Ⓝ  $a^4 \cdot b^6$

Ⓓ  $a^4 + a^6$

Ⓛ  $(-3ab^2)(2a^2b)$

Ⓟ  $(3b)(-2ab^3)$

Ⓡ  $(-6a^2)(-b)$

Ⓒ  $(2a^2b)(3b^3)$

Ⓛ  $6a^2b^4$

Ⓛ  $a^4b^6$

Ⓒ  $-6a^3b^3$

Ⓛ  $a^{10}$

Ⓖ  $a^4 + a^6$

Ⓒ  $-6ab^4$

Ⓛ  $6a^2b$

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
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