WHY ARE MR. AND MRS. NUMBER SO HAPPY?

Find the simplest form for each expression below in the adjacent answer column. The letter of the exercise goes in the box that contains the number of the corresponding answer.

E) $x^3 \cdot x^4$

O) $3x^2 \cdot x$

T) $2x^2 \cdot 3x$

I) $x \cdot x^2 \cdot x^3$

A) $x^4(-3x^2)$

H) $(-2x^2)(-2x)$

E) $x(-x^4)(-x^4)$

(19) $-3x^6$

(14) $3x^3$

(25) x^9

(7) x^7

(10) x^6

(2) $4x^3$

(23) $6x^3$

R) $(ab^2)(a^2b)$

A) $(3ab)(2a^3b)$

G) $ab(-4ab^3)$

E) $(-a^4b)(-5a^2b^3)$

T) $(-2a^3b)(2ab^3)$

N) $(6a^2b^2)(-2ab^5)$

O) $(-4ab^4)(-3ab^4)$

(18) $5a^6b^4$

(6) a^3b^3

(26) $12a^2b^8$

(8) $-4a^2b^4$

(11) $-12a^3b^7$

(1) $-4a^4b^4$

(16) $6a^4b^2$

T) $(u^2v)(-6uv^2)$

E) $v(uv^2)(u^3v)$

I) $(4uv)(-u)(2u^4v)$

A) $(-3u^2)(-u^2v^2)(2uv)$

L) $(-u^2)(-6u^2v^3)(-u^3v^4)$

G) $(-2u)(u^2v)(4u^3v^3)$

V) $\frac{1}{2}u^2v^3)(2uv^4)$

(21) $-8u^6v^4$

(3) u^4v^4

(12) $-8u^6v^2$

(17) u^3v^7

(5) $6u^5v^3$

(13) $-6u^3v^3$

(24) $-6u^7v^7$

L) $(-b^2)(9a^2b^3)$

Y) $(3a^2c)(-3bc^2)$

E) $c(-ab)(a^2b^2c^2)$

O) $(-3a^2c)(-3b^2c)$

T) $(-ab)(-b^2c^2)(-a^2b^2)$

H) $(a^2bc^2)(b^2c^3)(9a)$

N) $(3b^2)(\frac{1}{3}abc)(-c)$

(22) $-a^3b^5c^2$

(27) $-ab^3c^2$

(28) $-a^3b^3c^3$

(15) $9a^3b^3c^5$

(4) $-9a^2bc^3$

(20) $-9a^2b^5$

(9) $9a^2b^2c^2$

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

OBJECTIVE 1--e: To multiply monomials.

What Happens to a Dog Who Eats Table Scraps ?

Simplify each expression below. Find your answer in the corresponding answer column and notice the letter next to it. Write this letter in the box that contains the number of that exercise.

① $(x^3)^2$

② $(x^4)^3$

③ $(2x^2)^3$

④ $(-4x^3)^2$

⑤ $(-3x^4)^3$

⑥ $(8x^5)^2$

⑦ $(-2x^3)^5$

⑧ $(4x)^3$

⑨ $(-9x)^2$

⑩ $x(2x^2)^3$

⑪ $-3x(2x)^2$

⑫ $x^2(5x^3)^3$

⑬ $-4x^2(-4x)^2$

(L) $81x^2$

(T) $125x^{11}$

(S) $-32x^{15}$

(G) $8x^6$

(E) $-64x^4$

(H) x^6

(N) $-12x^3$

(S) $64x^{10}$

(E) x^{12}

(P) $64x^3$

(E) $16x^6$

(I) $8x^7$

(T) $-27x^{12}$

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⑭ $(4a^2b^3)^2$

⑮ $(2a^4b)^3$

⑯ $(-5a^3b^3)^2$

⑰ $(ab^5)^3$

⑱ $(-a^2b^2)^3$

⑲ $(-8ab^4)^2$

⑳ $2a(3a^2b)^2$

㉑ $-b(5a^3b)^3$

㉒ $3ab(2ab^2)^4$

㉓ $(ab^3)^2(a^2b)^3$

㉔ $(-2ab^2)^2(-ab)^3$

㉕ $(3ab^2)(3ab)^2$

㉖ $(-a^2b)^4(-a^2b^4)$

(H) $-a^6b^6$

(E) $-a^{10}b^8$

(R) $16a^4b^6$

(N) a^8b^9

(I) $25a^6b^6$

(S) $18a^5b^2$

(U) $27a^3b^4$

(N) a^3b^{15}

(I) $64a^2b^8$

(O) $48a^5b^9$

(S) $8a^{12}b^3$

(G) $-4a^5b^7$

(T) $-125a^9b^4$

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

OBJECTIVE 1–f: To find powers of a monomial.

Why Are Babies Like Hinges ?

Simplify each expression below and find your answer in the set of answers to the right of that exercise. Write the letter of your answer in the box that contains the number of that exercise.

① $\dfrac{n^9}{n^5}$ ③ $\dfrac{2n^4}{n}$

Ⓐ $2n^6$ Ⓔ $2n^3$
Ⓗ n^9 Ⓣ n^4

② $\dfrac{n^{12}}{n^3}$ ④ $\dfrac{6n^2}{3n^5}$

Ⓡ $\dfrac{2}{n^6}$ Ⓨ $\dfrac{2}{n^3}$

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⑤ $\dfrac{x^3y^4}{x^2y}$ ⑦ $\dfrac{8xy^2}{12x^3y^5}$

Ⓡ $-4x^3$ Ⓐ xy^3
Ⓢ $-4y^4$ Ⓣ $-4y^7$

⑥ $\dfrac{-8x^6y^2}{2x^3y^2}$ ⑧ $\dfrac{20x^3y^8}{-5x^3y}$

Ⓔ $\dfrac{2}{3x^2y^3}$ Ⓤ $\dfrac{2}{3xy^4}$

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⑨ $\dfrac{3a^5b^2}{9a^2b^5}$ ⑪ $\dfrac{-24a^2b}{18ab^5}$

Ⓘ $5ab^8$ Ⓐ $15a^2$
Ⓛ $5ab^6$ Ⓖ $15a^3$

⑩ $\dfrac{-15a^2b^9}{-3ab}$ ⑫ $\dfrac{30a^9b^2}{2a^6b^2}$

Ⓝ $-\dfrac{4a}{3b^4}$ Ⓗ $\dfrac{a^3}{3b^3}$

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⑬ $\dfrac{8u^4v^{10}}{-2u^2v^8}$ ⑮ $\dfrac{-7u^2v^6}{uv^3}$

Ⓑ $-7uv^5$ Ⓢ $-4u^2v^2$
Ⓞ $-7uv^3$ Ⓔ $-4u^7v^2$

⑭ $\dfrac{13u^7v^7}{26u^7v}$ ⑯ $\dfrac{-9u^8v^2}{-6u^2v^6}$

Ⓣ $\dfrac{v^6}{2}$ Ⓐ $\dfrac{3u^6}{2v^4}$

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⑰ $\dfrac{14k^9m^3}{2km^3}$ ⑲ $\dfrac{-3k^5m^6}{k^4m^3}$

Ⓔ $-3k$ Ⓛ $7k^6m$
Ⓓ $7k^8$ Ⓡ $-3km^3$

⑱ $\dfrac{4k^2m^2}{16k^5m^3}$ ⑳ $\dfrac{12km^3}{-4m^3}$

Ⓞ $\dfrac{1}{4k^3m}$ Ⓝ $\dfrac{1}{4km^2}$

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

OBJECTIVE 3–a: To divide monomials.