

Why Is a Stick of Gum Like a Sneeze?

For each exercise, multiply the two polynomials. Find your answer in the set of answers under the exercise. Cross out the letter above your answer. When you finish, the answer to the title question will remain!

- ① $(x + 3)(x + 5)$
- ② $(x + 2)(x + 9)$
- ③ $(x - 8)(x + 1)$
- ④ $(x - 3)(x - 6)$
- ⑤ $(2x + 9)(x - 2)$
- ⑥ $(3x + 1)(2x + 4)$

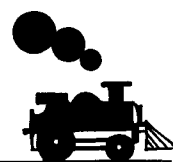
- ⑦ $(4a - 7)(3a - 2)$
- ⑧ $(2a + 5)(2a - 5)$
- ⑨ $(6a - 1)(2a + 4)$
- ⑩ $(a + 2b)(4a + b)$
- ⑪ $(5a + 3b)(a - 4b)$
- ⑫ $(3a - 8b)(2a - b)$

- ⑬ $(n + 2)(n^2 + 5n - 3)$
- ⑭ $(3n - 1)(2n^2 + 4n + 4)$
- ⑮ $(2n + 3)(6n^2 - 2n + 1)$
- ⑯ $(4n - 5)(n^2 - 7n - 2)$
- ⑰ $(3n - 4)(4n^2 + 2n + 3)$
- ⑱ $(n + 8)(6n^2 - n - 4)$

B	E	S	I	A	U	T	N	T	I	S	E	R	A	N	O	T	C	R	I	H	E	A	N	W	D
$x^2 - 7x - 8$	$x^2 + 8x + 15$	$6x^2 + 14x + 4$	$6x^2 + 7x + 4$	$x^2 - 9x + 18$	$x^2 + 11x + 18$	$x^2 - 13x + 18$	$2x^2 + 5x - 18$	$4a^2 + 9ab + 2b^2$	$6a^2 - 19ab + 8b^2$	$5a^2 - 11ab - 12b^2$	$12a^2 + 22a - 4$	$4a^2 - 25$	$4a^2 + 4ab + 3b^2$	$5a^2 - 17ab - 12b^2$	$12a^2 - 29a + 14$	$6n^3 + 47n^2 - 12n - 32$	$6n^3 + 44n^2 - 9n - 32$	$4n^3 - 33n^2 + 27n + 10$	$6n^3 + 10n^2 + 8n - 4$	$n^3 + 6n^2 + 9n - 6$	$12n^3 - 9n^2 - 2n - 12$	$12n^3 - 10n^2 + n - 12$	$n^3 + 7n^2 + 7n - 6$	$4n^3 - 30n^2 + 21n + 10$	$12n^3 + 14n^2 - 4n + 3$



Why Was the Engineer Driving the Train Backwards ?



Find the missing factor in each exercise below. Find your answer in the set of answers to the right of that exercise. Write the letter next to your answer in the box containing the number of that exercise.

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|-----------------------------------------------|-----------|-----------|
| ① $x^8 = (x^5)(\underline{\hspace{2cm}})$ | Ⓓ $4x^5$ | Ⓝ x^6 |
| ② $24x^5 = (6x^2)(\underline{\hspace{2cm}})$ | Ⓐ $-5x^5$ | Ⓞ $4x^3$ |
| ③ $-12x^4 = (3x^3)(\underline{\hspace{2cm}})$ | Ⓗ x^3 | Ⓡ $-4x^8$ |
| ④ $20x^7 = (-4x^2)(\underline{\hspace{2cm}})$ | Ⓔ $-5x^3$ | ⓲ $-4x$ |

- | | | |
|--------------------------------------------------------|-------------|---------------|
| ⑤ $a^5b^8 = (a^2b^3)(\underline{\hspace{2cm}})$ | Ⓟ a^2b^2 | Ⓔ a^3b^5 |
| ⑥ $4a^2b^6 = (2ab^2)(\underline{\hspace{2cm}})$ | Ⓥ $5a^3b^3$ | Ⓐ $-12a^2b^4$ |
| ⑦ $-15a^7b^4 = (-3a^4b)(\underline{\hspace{2cm}})$ | Ⓛ $2ab^7$ | Ⓗ $-12a^5b$ |
| ⑧ $72a^{10}b^3 = (-6a^5b^2)(\underline{\hspace{2cm}})$ | Ⓞ $2ab^4$ | Ⓚ $5a^5b^3$ |

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|-----------------------------------------------------|------------|-------------|
| ⑨ $x^5y^3 = (x^2)(\underline{\hspace{2cm}})$ | Ⓥ $-3y^4$ | Ⓞ $3x^2y^6$ |
| ⑩ $-6x^2y^7 = (-2y)(\underline{\hspace{2cm}})$ | Ⓛ $-2x^7$ | Ⓣ $3x^2y^3$ |
| ⑪ $14x^9y^6 = (-7x^2y^6)(\underline{\hspace{2cm}})$ | Ⓢ $-2x^6y$ | Ⓐ x^3y^3 |
| ⑫ $27x^4y^3 = (9x^4y)(\underline{\hspace{2cm}})$ | Ⓑ x^2y^4 | Ⓔ $3y^2$ |

- | | | |
|----------------------------------------------------|------------|-----------------|
| ⑬ $-3u^4v^2 = (u^2v)(\underline{\hspace{2cm}})$ | Ⓡ $-2uv^6$ | Ⓡ $-3u^2v^4$ |
| ⑭ $32uv^5 = (-16v^2)(\underline{\hspace{2cm}})$ | Ⓜ $11v^2$ | Ⓒ $-3u^2v^{11}$ |
| ⑮ $121u^2v^3 = (11u^2v)(\underline{\hspace{2cm}})$ | Ⓟ $11uv^3$ | Ⓔ $3u^2v^6$ |
| ⑯ $-6u^3v^{12} = (2uv)(\underline{\hspace{2cm}})$ | Ⓣ $-3u^2v$ | Ⓓ $-2uv^3$ |

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