

How Did Snidely Spellbinder Write a Four-Letter Word That Begins and Ends With "E"?



Write each expression below in factored form. Find your answer in the set of answers under the exercise and cross out the box above it. When you finish, the answer to the title question will remain.

- ① $x^2 + 3x + xk + 3k$
- ② $a^2 - 2a + ad - 2d$
- ③ $uv + 5u + v^2 + 5v$
- ④ $x^2 - xk + 4x - 4k$
- ⑤ $ad + 3a - d^2 - 3d$
- ⑥ $y^3 + y^2 + 2y + 2$

- ⑦ $m^3 + m^2n + mn^2 + n^3$
- ⑧ $u^3 - u^2v + uv^2 - v^3$
- ⑨ $t^2 + 2t + 3kt + 6k$
- ⑩ $2ab + 14a + b + 7$
- ⑪ $m^2 + mn - 3m - 3n$
- ⑫ $5x^2y - x^2 + 5y - 1$

B		$(a - d)(d + 3)$																			
W		$(u + 2)(v + 5)$																			
E		$(x + 4)(x - k)$																			
A		$(a + d)(a - 2)$																			
I		$(2y^2 + 1)(y + 1)$																			
N		$(x + k)(x + 3)$																			
T		$(a - d)(d - 2)$																			
R		$(v^2 + 2)(v + 1)$																			
H		$(x + k)(4x + 3)$																			
4		$(u + v)(v + 5)$																			
L		$(u^2 + v^2)(u - v)$																			
G		$(x^2 + 1)(5y - 1)$																			
E		$(7a + 2)(b + 7)$																			
T		$(t + 3k)(t + 2)$																			
I		$(m^2 + n^2)(m + n)$																			
A		$(3t - k)(t + 2)$																			
S		$(m^2 - 2)(m + n)$																			
P		$(2a + 1)(b + 7)$																			
E		$(2x + 5)(5y - 1)$																			
N		$(m - 3)(m + n)$																			

Why Didn't Klutz Do Any Homework on Saturday?



Either multiply or factor, as directed, and find your answer in the adjacent answer column. Write the letter of that exercise in the box that contains the number of the answer.

Multiply:

- ① $(a + 5)(a - 5)$
 ② $(2 + 3a)(2 - 3a)$
 ③ $(7a - 1)(7a + 1)$
 ④ $(a^2 - 6)(a^2 + 6)$
 ⑤ $(4a + b)(4a - b)$
 ⑥ $(2a^2 - 5b)(2a^2 + 5b)$
 ⑦ $16a^2 - b^2$
 ⑧ $49a^2 - 1$
 ⑨ $a^2 - 25$
 ⑩ $4a^4 - 25b^2$
 ⑪ $4 - 9a^2$
 ⑫ $4a^4 - 36$
 ⑬ $a^4 - 36$

Factor:

- ⑭ $x^2 - y^2$
 ⑮ $4x^2 - 49y^2$
 ⑯ $81x^2 - 100y^2$
 ⑰ $36x^2 - 121y^2$
 ⑱ $9x^2 - 64y^2$
 ⑲ $x^4 - 400$
 ⑳ $(9x + 10y)(9x - 10y)$
 ㉑ $(x + y)(x - y)$
 ㉒ $(x^2 + 20)(x^2 - 20)$
 ㉓ $(6x + 11y)(6x - 11y)$
 ㉔ $(3x + 7y)(3x - 7y)$
 ㉕ $(2x + 7y)(2x - 7y)$
 ㉖ $(3x + 8y)(3x - 8y)$

Factor:

- ① $(2n + 3)(2n - 3)$
 ② $n^2 - 49$
 ③ $n^2 - 1$
 ④ $81 - n^2$
 ⑤ $4n^2 - 9$
 ⑥ $49n^2 - 16$
 ⑦ $144 - 25n^2$
 ⑧ $(12 + 5n)(12 - 5n)$
 ⑨ $(n + 1)(n - 1)$
 ⑩ $(7n + 3)(7n - 3)$
 ⑪ $(n + 7)(n - 7)$
 ⑫ $(9 + n)(9 - n)$
 ⑬ $(7n + 4)(7n - 4)$

Factor:

- ⑭ $a^6 - b^4$
 ⑮ $25a^8 - 9b^4$
 ⑯ $a^2b^2 - 36$
 ⑰ $16 - a^4b^6$
 ⑱ $a^2b^4 - c^8$
 ㉑ $4a^{16} - 225$
 ㉒ $(4 + a^2b^3)(4 - a^2b^3)$
 ㉓ $(2a^8 + 15)(2a^8 - 15)$
 ㉔ $(a^3 + b^2)(a^3 - b^2)$
 ㉕ $(ab^2 + c^4)(ab^2 - c^4)$
 ㉖ $(ab + 6)(ab - 6)$
 ㉗ $(5a^4 + 3b^2)(5a^4 - 3b^2)$
 ㉘ $(4 + ab^4)(4 - ab^4)$

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
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OBJECTIVE 3-h: To simplify products of the form $(a + b)(a - b)$; to factor differences of squares.