



Why Does Gyro Never, Ever Bet on Even Numbers?



OBJECTIVE 3-k: To factor completely a polynomial that has as a factor a difference of squares or a trinomial square.

Factor completely each polynomial below. Find your answer and notice the two letters next to it. Write these letters in the two boxes at the bottom of the page that contain the number of that exercise.

- ① $3x^2 - 75$
② $5x^2 + 30x + 45$
③ $x^3 - 49x$
④ $2x^2 - 24x + 72$

- LO $5(x - 4)^2$ SF $5(x + 3)^2$
EL $2(x - 12)^2$ NT $2(x - 6)^2$
HE $3(x + 5)(x - 5)$ CH $3(x + 2)(x - 2)$
EA $x(x + 8)(x - 8)$ ST $x(x + 7)(x - 7)$

- ⑤ $2k^3 - 8k$
⑥ $54k^2 - 24$
⑦ $5k^3 + 100k^2 + 500k$
⑧ $12k^2 - 36k + 27$

- HI $5k(k + 10)^2$ HE $2k(k + 2)(k - 2)$
EN $3(k - 2)^2$ LS $6(3k + 1)(3k - 1)$
SO $2k(k + 4)(k - 4)$ OR $3(2k - 3)^2$
DS $6(3k + 2)(3k - 2)$ TE $5k(k + 8)^2$

- ⑨ $7a^3b - 7ab^3$
⑩ $32a^2b^2 + 16ab^2 + 2b^2$
⑪ $4a^3b - 40a^2b^2 + 100ab^3$
⑫ $4a^4b^3 - a^2b$

- MI $7ab(a + 2b)^2$ AT $2b^2(2a + 4)^2$
LA $4ab(a - 3b)^2$ AV $4ab(a - 5b)^2$
OD $a^2b(2ab + 1)(2ab - 1)$ MA $a^2b(ab + 2)(ab - 2)$
WA $7ab(a + b)(a - b)$ IN $2b^2(4a + 1)^2$

5	5	9	9	4	4	3	3	1	1	12	6	6	10	10	7	7	2	2	11	11	8	8
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