



Why Doesn't Gyro Bet on Even Numbers When Playing Roulette?



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.

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|--|--|--|---|---|---|---|---|---|---|----|----|----|---|----|----|----|---|---|---|----|----|----|---|---|--|--|
| <p>① $3x^2 - 75$</p> <p>② $5x^2 + 30x + 45$</p> <p>③ $x^3 - 49x$</p> <p>④ $2x^2 - 24x + 72$</p> | <p>LO $5(x - 4)^2$</p> <p>EL $2(x - 12)^2$</p> <p>HE $3(x + 5)(x - 5)$</p> <p>EA $x(x + 8)(x - 8)$</p> | <p>SF $5(x + 3)^2$</p> <p>NT $2(x - 6)^2$</p> <p>CH $3(x + 2)(x - 2)$</p> <p>ST $x(x + 7)(x - 7)$</p> | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>⑤ $2k^3 - 8k$</p> <p>⑥ $54k^2 - 24$</p> <p>⑦ $5k^3 + 100k^2 + 500k$</p> <p>⑧ $12k^2 - 36k + 27$</p> | <p>HI $5k(k + 10)^2$</p> <p>EN $3(k - 2)^2$</p> <p>SO $2k(k + 4)(k - 4)$</p> <p>DS $6(3k + 2)(3k - 2)$</p> | <p>HE $2k(k + 2)(k - 2)$</p> <p>LS $6(3k + 1)(3k - 1)$</p> <p>OR $3(2k - 3)^2$</p> <p>TE $5k(k + 8)^2$</p> | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>⑨ $7a^3b - 7ab^3$</p> <p>⑩ $32a^2b^2 + 16ab^2 + 2b^2$</p> <p>⑪ $4a^3b - 40a^2b^2 + 100ab^3$</p> <p>⑫ $4a^4b^3 - a^2b$</p> | <p>MI $7ab(a + 2b)^2$</p> <p>LA $4ab(a - 3b)^2$</p> <p>OD $a^2b(2ab + 1)(2ab - 1)$</p> <p>WA $7ab(a + b)(a - b)$</p> | <p>AT $2b^2(2a + 4)^2$</p> <p>AV $4ab(a - 5b)^2$</p> <p>MA $a^2b(ab + 2)(ab - 2)$</p> <p>IN $2b^2(4a + 1)^2$</p> | | | | | | | | | | | | | | | | | | | | | | | | |
| <table border="1" style="margin: auto; border-collapse: collapse;"> <tbody> <tr> <td style="width: 20px; height: 20px; text-align: center;">5</td> <td style="width: 20px; height: 20px; text-align: center;">5</td> <td style="width: 20px; height: 20px; text-align: center;">9</td> <td style="width: 20px; height: 20px; text-align: center;">9</td> <td style="width: 20px; height: 20px; text-align: center;">4</td> <td style="width: 20px; height: 20px; text-align: center;">4</td> <td style="width: 20px; height: 20px; text-align: center;">3</td> <td style="width: 20px; height: 20px; text-align: center;">3</td> <td style="width: 20px; height: 20px; text-align: center;">1</td> <td style="width: 20px; height: 20px; text-align: center;">1</td> <td style="width: 20px; height: 20px; text-align: center;">12</td> <td style="width: 20px; height: 20px; text-align: center;">12</td> <td style="width: 20px; height: 20px; text-align: center;">6</td> <td style="width: 20px; height: 20px; text-align: center;">6</td> <td style="width: 20px; height: 20px; text-align: center;">10</td> <td style="width: 20px; height: 20px; text-align: center;">10</td> <td style="width: 20px; height: 20px; text-align: center;">7</td> <td style="width: 20px; height: 20px; text-align: center;">7</td> <td style="width: 20px; height: 20px; text-align: center;">2</td> <td style="width: 20px; height: 20px; text-align: center;">2</td> <td style="width: 20px; height: 20px; text-align: center;">11</td> <td style="width: 20px; height: 20px; text-align: center;">11</td> <td style="width: 20px; height: 20px; text-align: center;">8</td> <td style="width: 20px; height: 20px; text-align: center;">8</td> </tr> </tbody> </table> | 5 | 5 | 9 | 9 | 4 | 4 | 3 | 3 | 1 | 1 | 12 | 12 | 6 | 6 | 10 | 10 | 7 | 7 | 2 | 2 | 11 | 11 | 8 | 8 | | |
| 5 | 5 | 9 | 9 | 4 | 4 | 3 | 3 | 1 | 1 | 12 | 12 | 6 | 6 | 10 | 10 | 7 | 7 | 2 | 2 | 11 | 11 | 8 | 8 | | | |