

A P.I. R² Mini-Mystery

Who Killed Mr. Factor?

Directions: Solve each quadratic equation below by factoring, then use your solutions to eliminate the suspects and solve the mystery.

- | | |
|--------------------------|--------------------------|
| 1. $2x^2 + 3x - 9 = 0$ | 2. $3x^2 - 2x - 1 = 0$ |
| 3. $3x^2 + 7x + 4 = 0$ | 4. $5x^2 - 17x - 12 = 0$ |
| 5. $6x^2 - x - 12 = 0$ | 6. $6x^2 + 5x - 6 = 0$ |
| 7. $5x^2 - 37x - 24 = 0$ | 8. $25x^2 + 10x + 1 = 0$ |
| 9. $5x^2 + 27x - 18 = 0$ | 10. $6x^2 - 13x - 8 = 0$ |
| 11. $16x^2 - 25x = -9$ | 12. $10x^2 + 29x = -10$ |
| 13. $8x^2 = 2x + 3$ | 14. $20x^2 = 5 - 21x$ |
| 15. $5x^2 + 15 = -28x$ | 16. $12x^2 + 5 = 19x$ |
| 17. $10x^2 = 11x + 6$ | 18. $10x - 8 = -3x^2$ |
| 19. $-2x^2 + x + 10 = 0$ | 20. $-3x^2 = -5 - 14x$ |

WHO?

Ms. Scarlett $\{-\frac{4}{3}, -1\}$ Mr. Green $\{-\frac{3}{2}, \frac{2}{3}\}$ Dr. Black $\{-\frac{2}{5}, -\frac{5}{2}\}$ Mrs. Brown $\{-\frac{1}{3}, \frac{5}{4}\}$ Mrs. Wright $\{-\frac{2}{5}, \frac{3}{2}\}$ Ms. Redd $\{-\frac{1}{2}, \frac{8}{3}\}$

WHAT?

Candlestick $\{-\frac{1}{5}\}$ Leadpipe $\{-4, \frac{2}{3}\}$ Wrench $\{-\frac{4}{3}, \frac{3}{2}\}$ Rope $\{-\frac{1}{2}, \frac{3}{4}\}$ Poison $\{-\frac{3}{5}, 4\}$ Knife $\{-\frac{2}{3}, \frac{3}{2}\}$

WHERE?

Dining Room $\{-6, \frac{3}{5}\}$ Living Room $\{-5, -\frac{3}{5}\}$ Bedroom $\{-\frac{3}{5}, 8\}$ Game Room $\{-2, \frac{5}{2}\}$ Library $\{\frac{1}{3}, \frac{5}{4}\}$ Study $\{-\frac{5}{4}, \frac{1}{5}\}$ Media Room $\{-\frac{1}{3}, 1\}$ Kitchen $\{-\frac{1}{3}, 5\}$ Garage $\{\frac{1}{2}, \frac{3}{4}\}$ She Shed $\{\frac{9}{16}, 1\}$ Man Cave $\{-3, \frac{3}{2}\}$

IT WAS (WHO)

WITH A (WHAT)

IN THE (WHERE)