

Simultaneous equations

1. $x + 2y = 4$ $3x - 4y = 7$	2. $3x + 7y = 26$ $4x + 5y = 13$
3. $6x - 4y = 6$ $3x + 12y = 24$	4. $2x + y = 4$ $4x + 3y = 6$
5. $7x + 2y = 17$ $3x + 2y = 5$	6. $5x + 2y = 9$ $x - 4y = 4$
7. $3x - 2y = 3$ $x + 4y = 8$	8. $y = z^2 + 2$, $2x + z = 5$, Eliminate z and write the equation in the form of $y = ax^2 + bx + c$.
9. $x^2 + y^2 = 45$ $y = x - 3$	10. $4x - 3y = 13$ $2x + y = 4$
11. Show that $2x + y = 3$ and $x^2 + y^2 = 5$ satisfy the equation $5x^2 - 12x + 4 = 0$. Solve it as well.	18. $5x + 6y = 28$ $x + 3y = 2$
19. $y = 2x - 5$ $x^2 + y^2 = 25$	20. $4x + 2y = 8$ $2x - 5y = 10$
21. $3x - 4y = 13$ $2x + 3y = 3$	22. $x^2 + y^2 = 25$ $y = x - 7$
23. $3x + y = 8$ $4x + 2y = 9$	24. $7x + 2y = 17$ $3x + 2y = 5$
25. $5x + 3y = 6$ $3x - 7y = 19$	26. $3x + 5y = 4$ $6x + y = 26$
21. A computer games retailer sells packs of games made up from mid-price and full-price titles. Pack A contains 3 mid-price and 2 full-price titles, and sells for £93.45. Pack B contains 5 mid-price and 3 full-price titles, and sells for £146.42. Assuming that the retailer has not applied any quantity discount, calculate the value of (a) one mid and (b) one full price game	