ILLAWARRA TUTORING

In this worksheet you will learn to recognise patterns in binomial products and to expand them effectively. Each question provides an opportunity to practise multiplying two binomials. Remember to distribute each term appropriately.

## Easy Questions

1. Expand $(x+2)(x+3)$.
2. Expand $(2x+1)(x+3)$.
3. Write the expansion of $(x+y)^2$.
4. Expand $(a-4)(a+5)$.
5. Expand $(3x-2)(x-4)$.

## Intermediate Questions

6. Expand $(x-3)(x+7)$.
7. Expand $(2a+3)(4a-5)$.
8. Expand $(2x+3)(3x+5)$.
9. Expand $(5x+2)(x-1)$.
10. Expand $(3p+4)(2p+5)$.
11. Expand $(x+2)(x-5)$.
12. Expand $(3y-1)(y+6)$.
13. Expand $(4z+3)(2z-7)$.
14. Expand $(2m-3)(m+8)$.
15. Expand $(x+4)(x+9)$.
16. Expand $(5a-4)(3a+2)$.
17. Expand $(-x+3)(2x+5)$.
18. Expand $(2p+3)(4p+1)$.
19. Expand $(3x-2)(x+7)$.
20. Expand $(2a-5)(3a-1)$.

# Hard Questions

21. Given that $(2x + a)(3x + b)$ expands to $6x^2 + 7x - 20$, find the values of a and b.
22. Expand $\left(\frac{1}{2}x + 3\right)(2x - 1)$.
23. Expand $(3x - 2)(4x + 7)$.
24. Expand $(3 - x)(2x + 7)$.
25. Expand $(4x - 3)(3 - 2x)$.
26. Expand $(5 - 2x)(3x - 4)$.
27. Expand $(2x + 3)(-x + 5)$.
28. Expand $(-3x + 4)(2x - 1)$.
29. Expand $(1 - 2x)(3x + 6)$.
30. Expand $(3x + 2)(-2x - 7)$.