Exercises [A–2]

Carry out the indicated multiplications.

1. $(a+2)(a+5)$
2. $(b-2)(b-7)$
3. $(y-2)(y+4)$
4. $(z-3)(3z-1)$
5. $(3-y)(2+y)$
6. $(8+z)(8-z)$
7. $(a-b)(a+2b)$
8. $(p+2q)(2p-q)$
9. $(6a-1)(2a+5)$
10. $(8x+3y)(2x+7y)$
11. $(x^2-4)(9x^2-1)$
12. $(a-b)(a-c)$
13. $(x+2)(y+2)$
14. $(r-2s)(3r-5s)$
15. $(3m+n)(3m+n)$
16. $(4a+b)(4a-b)$
17. $(2a+3b)(3a-5b)$
18. $(5-xy)(4+xy)$
19. $(2mn+5)(mn-4)$
20. $(x-7y)(x-2y)$
21. $(x-1)(x+1)$
22. $(x+1)(x+1)$
23. $(1-x)(1+x)$
24. $(2n-1)(n+8)$
25. $(12c-5)(5c+9)$
26. $2(a+b)(a+2b)$
27. $4(z-1)(2z-8)$
28. $2(3x+y)(2x+y)$
29. $-(a+3b)(a-b)$
30. The factors of a polynomial are $7x-y$ and $7x+y$. What is the polynomial?

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1. $a^2 + 7a + 10$
2. $b^2 - 9b + 14$
3. $y^2 + 2y - 8$
4. $3z^2 - 10z + 3$
5. $6 + y - y^2$
6. $64 - z^2$
7. $a^2 + ab - 2b^2$
8. $2p^2 + 3pq - 2q^2$
9. $12a^2 + 28a - 5$
10. $16x^2 + 62xy + 21y^2$
11. $9x^4 - 37x^2 + 4$
12. $a^2 - ab - ac + bc$
13. $xy + 2y + 2x + 4$
14. $3r^2 - 11rs + 10s^2$
15. $9m^2 + 6mn + n^2$
16. $16a^2 - b^2$
17. $6a^2 - ab - 15b^2$
18. $20 + xy - x^2y^2$
19. $2m^2n^2 - 3mn - 20$
20. $x^2 - 9xy + 14y^2$
21. $x^2 - 1$
22. $x^2 + 2x + 1$
23. $1 - x^2$
24. $2n^2 + 15n - 8$
25. $60c^2 + 83c - 45$
26. $2a^2 + 6ab + 4b^2$
27. $8z^2 - 40z + 32$
28. $12x^2 + 10xy + 2y^2$
29. $-a^2 - 2ab + 3b^2$
30. $49x^2 - y^2$