

Name: _____

Date: _____

Simplify, using formula $(a-b)(a+b)=a^2-b^2$:

1. $(m+n)(m-n)$

2. $(p-q)(p+q)$

3. $(c+d)(d-c)$

4. $(a-c)(c+a)$

5. $(a+3)(a-3)$

6. $(d+5)(d-5)$

7. $(x+1)(x-1)$

8. $(1+a)(1-a)$

9. $(2a+b)(2a-b)$

10. $(a+3b)(a-3b)$

11. $(2xy-1)(2xy+1)$

12. $(1+3ab)(1-3ab)$

13. $(5a^2-3b)(5a^2+3b)$

14. $(4m^2+6n)(4m^2-6n)$

15. $(a^n-b^n)(a^n+b^n)$

16. $(x^k-y)(x^k+y)$

17. $(2\frac{1}{2}x - \frac{3}{4}y)(2\frac{1}{2}x + \frac{3}{4}y)$

18. $(1\frac{2}{3}p + 1\frac{1}{2}q)(1\frac{2}{3}p - 1\frac{1}{2}q)$

19. $(0.2t-0.5u)(0.2t+0.5u)$

20. $(0.1m^3-0.3n)(0.1m^3+0.3n)$

21. $(1.2cd+2.3x)(1.2cd-2.3x)$

22. $(1.3ab-1.1c)(1.3ab+1.1c)$

23. $(0.3m + \frac{1}{3}n)(0.3m - \frac{1}{3}n)$

24. $(2\frac{1}{2}n + 3.6b)(3.6b - 2\frac{1}{2}a)$

Simplify, using formulas $(a-b)^2=a^2-2ab+b^2$ or $(a+b)^2=a^2+2ab+b^2$:

25. $(m+n)^2$

26. $(p-q)^2$

$$27. (c - d)^2$$

$$28. (2 + a)^2$$

$$29. (3 + b)^2$$

$$30. (x + 5)^2$$

$$31. (x + 3)^2$$

$$32. (a - 4)^2$$

$$33. (x + 1)^2$$

$$34. (3a - b)^2$$

$$35. (5z + t)^2$$

$$36. (5x - 2y)^2$$

$$37. (6a - 4b)^2$$

$$38. (a^2 - b)^2$$

$$39. (c^3 - 1)^2$$

$$40. (a^2 + 1)^2$$

$$41. (x^2 + y^2)^2$$

$$42. (z^3 - u^3)^2$$

$$43. (m^3 + n^3)^2$$

$$44. \left(a - \frac{3}{4}\right)^2$$

$$45. \left(b - \frac{1}{2}\right)^2$$

$$46. \left(a - \frac{3}{4}\right)^2$$

$$47. (x - 0.5)^2$$

$$48. \left(y - \frac{2}{3}\right)^2$$