

Correctif sur les produits remarquables

1. $(2a + 3b)^2 = 4a^2 + 12ab + 9b^2$
2. $(x + 2y)^2 = x^2 + 4xy + 4y^2$
3. $(7x^2 + y)^2 = 49x^4 + 14x^2y + y^2$
4. $\left(\frac{2}{3}x + y\right)^2 = \frac{4}{9}x^2 + \frac{4}{3}xy + y^2$
5. $\left(\frac{1}{2}a + \frac{2}{3}b\right)^2 = \frac{1}{4}a^2 + \frac{2}{3}ab + \frac{4}{9}b^2$
6. $\left(\frac{4}{7}x + \frac{7}{3}y\right)^2 = \frac{16}{49}x^2 + \frac{8}{3}xy + \frac{49}{9}y^2$
7. $(5x^2y + 3xy^3)^2 = 25x^4y^2 + 30x^3y^4 + 9x^2y^6$
8. $(12a + 0,3)^2 = 144a^2 + 2 \cdot 12 \cdot 0,3a + 0,09 = 144a^2 + 7,2a + 0,09$
9. $(7a - 3b)^2 = 49a^2 + 9b^2 - 42ab$
10. $(4x - 2y)^2 = 16x^2 + 4y^2 - 16xy$
11. $(7x^2 - 2y)^2 = 49x^4 + 4y^2 - 28x^2y$
12. $\left(\frac{14}{3}x - y\right)^2 = \frac{196x^2}{9} + y^2 - \frac{28}{3}xy$
13. $\left(\frac{1}{4}a - \frac{2}{3}b\right)^2 = \frac{a^2}{16} + \frac{4}{9}b^2 - \frac{1}{3}ab$
14. $\left(\frac{4}{7}x - \frac{21}{2}y\right)^2 = \frac{16}{49}x^2 + \frac{441}{4}y^2 - 2 \cdot \frac{4}{7} \cdot \frac{21}{2}xy = \frac{16}{49}x^2 + \frac{441}{4}y^2 - 12xy$
15. $(5x^3y^2 - 3xy^3)^2 = 25x^6y^4 + 9x^2y^6 - 30x^4y^5$
16. $(15a - 0,2)^2 = 225a^2 + 0,04 - 6a$
17. $(x - 7)(x + 7) = x^2 - 49$
18. $4(a^2 + b)(a^2 - b) = 4(a^4 - b^2) = 4a^4 - 4b^2$
19. $(x^3y + 15)(x^3y - 15) = x^6y^2 - 225$

Correctif sur les produits remarquables n°1

$$20. \left(\frac{5}{7} - ab\right)\left(\frac{5}{7} + ab\right) = \frac{25}{49} - a^2b^2$$

$$21. (3 + x)(x - 3) = (x + 3)(x - 3) = x^2 - 9$$

$$22. (-4x - 2y)^2 = (4x + 2y)^2 = 16x^2 + 4y^2 + 16xy$$

$$23. (-7x^2 - 2y)^2 = (7x^2 + 2y)^2 = 49x^4 + 4y^2 + 28x^2y$$

$$24. \left(-\frac{14}{3}x - y\right)^2 = \left(\frac{14}{3}x + y\right)^2 = \frac{196}{9}x^2 + y^2 + \frac{28}{3}xy$$

$$25. \left(-\frac{1}{4}a - \frac{2}{3}b\right)^2 = \left(\frac{1}{4}a + \frac{2}{3}b\right)^2 = \frac{1}{16}a^2 + \frac{4}{9}b^2 + \frac{1}{3}ab$$