

Operazioni con i monomi

Polynomials: Combining "Like Terms"

Eléments du calcul littéral



Somma algebrica di monomi

$$1. \quad -4y^2 + 5y^2 - 15y^2 =$$

2. $\frac{1}{2}a + 2b + a - b =$

$$3. \quad 7a - 3b + 5b - 12a + 4b + 6a =$$

$$4. \quad -4a + 3b - a - 2b + 5a - 4b =$$

$$5. \quad -10xy + 4y^2 - 7xy + 11xy - 3y^2 - y^2 =$$

6. $-5x^2y + 6x^2y - 9xy^2 + 3x^2y - 2xy^2 =$

$$Z_1 \quad 6x^2y - 9xy^2 + 3x^2y - 5x^2y - 2xy^2 + 9xy^2 =$$

$$8. \quad 2xy^2 + 6x^2y + 9xy^2 + 3x^2y - 5x^2y - 2xy^2 - 9xy^2 =$$

$$9 - \frac{1}{2x+1} = \frac{7}{x+1}$$

5 5 2 6 4 6

$$5^{x-y} - 3^{x-y} = 15^{x-y} + 3^{x-y}$$

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$$12. \quad (8a^3b + 8ab^3 - b^5) + (10ab^3 + 8ab^3 - 8a^3b - 5b^5) - (-3a^3b + 8ab^3 - 5b^5) - 5a^3b -$$

13. $(-2a^2 + 5a - 3b) - (-3b - 2a^2) - (5a - 6) \equiv$

$$\textbf{14.} \quad \left(-\frac{1}{6}cx + \frac{1}{2}bx \right) + \left(\frac{3}{7}ax - \frac{2}{5}bx - \frac{1}{6}cx \right) - \left(\frac{1}{10}bx - \frac{1}{3}cx - \frac{4}{7}ax \right) =$$

$$\text{15. } y^2 + 3x^2 - [5xy - (2x^3 + 10xy + 3y^2)] - [2x^3 - (-5xy + 10x^3)] - 4y^2 - 10x^3 =$$

16. $2x^3y^3 + 2 + xy^3 - 6x^2y^3 + 3 - xy^3 + 3x^2y^3 - 5 + 2x^2y^3 - 2x^3y^3 =$

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Prodotto, divisione e potenze di monomi

17. $a \cdot a \cdot a =$

18. $a^2 \cdot a^2 \cdot a^2 =$

19. $(-12x^4y) \div (+6x^2) =$

20. $(-18x^6y^4z) \div (+6x^6y^2z) =$

21. $\left(-\frac{3}{4}x^3y\right) \cdot \left(-\frac{4}{7}xy^2\right) =$

22. $\left(+\frac{3}{4}x^3y^2z\right) \div \left(-\frac{9}{4}xy\right) =$

23. $\left(-\frac{3}{4}x^3y^2z\right) \cdot \left(+\frac{9}{4}xy\right) =$

24. $\left(\frac{21}{5}x^2y^4z\right) \cdot \left(\frac{15}{7}xy^2z\right) =$

25. $\left(\frac{21}{5}x^2y^4z\right) \div \left(-\frac{14}{5}xy^2z\right) =$

26. $\left(-\frac{4}{3}x^2\right) \cdot \left(\frac{2}{5}y\right) =$

27. $\left(-\frac{15}{2}x^3y^2z\right) : \left(-\frac{5}{4}xyz\right) =$

28. $5a^3b^2 : (-2ab) =$

29. $(+6a^5b^3c) \div (-3ab^4c^3) =$

30. $\left(-\frac{1}{2}ab^2c^3\right)^3 : \left(-\frac{3}{2}ab^3c^2\right)^2 =$ (*)

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Esercizi riassuntivi

31. $(x^3y^2 - 7x^3y^2 + 3x^3y^2) \div (5x^2y - 2x^2y) =$

32. $\left[\frac{1}{2}a^6b^2 \cdot \left(-\frac{1}{2}ab^2 \right) + \frac{1}{4}a^4b^2 \cdot \frac{2}{3}a^3b^2 - 2a^7b^4 \right] : \left(-\frac{5}{2}a^2b^3 \right) =$

33. $\left(-\frac{3}{4}a^2bc^3 \right) \cdot \left(+\frac{10}{9}abc^2 \right) - \left(\frac{5}{8}a^3c \right) \cdot \left(\frac{2}{5}b^2c^4 \right) =$

34. $12x^3y^2 : (-4xy^2) - 2xy \cdot (-3xy^3) + (15x^2y) : (3y) - 6x^2y^4 =$ (*)

35. $2x^4 : \left(-\frac{2}{3}x^3 \right) + \frac{4}{3}x^3y^2 : \left(-\frac{1}{3}xy \right)^2 + (-2xy)^2 : (xy^2) =$ (*)

36. $\left[ab \cdot \left(\frac{1}{2}a^2b^3c^2 \right)^2 \right]^3 : \left[-a \cdot \left(-\frac{1}{2}ab^2c \right)^2 \right]^5 + \frac{4}{3}a^2bc^6m^4 : \left(-\frac{1}{3}a^2c^4m^4 \right) =$ (*)

37. $\left[\left(-\frac{1}{3}x^2y^3z^4 \right)^6 \div \left(-\frac{1}{3}x^2y^3z^4 \right)^2 \right]^3 \div \left[\left(-\frac{1}{3}x^2y^3z^4 \right)^2 \cdot \left(-\frac{1}{3}x^2y^3z^4 \right)^3 \right]^2 - \frac{1}{3}x^4y^6z^8 =$

38. $\left\{ \left(-\frac{3}{4}xy^2 \right)^5 : \left[-\frac{3}{4}x^3y^3 : x^2y \right]^2 \right\}^3 : \left(-\frac{3}{4}xy^2 \right)^6 =$

39. $\left\{ -y^2 - \left[\frac{1}{2}x^2 - \left(\frac{3}{4}x^2 - 4y^2 + xy \right) - \left(\frac{3}{2}xy - \frac{2}{3}x^2 \right) \right] \right\} \cdot \frac{3}{5} =$

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