

# Prodotti e potenze di monomi

## Periodo 1 - UdA 7-8

Risolvere le seguenti operazioni sui monomi

$$[1] \quad 4x^2 \cdot 5x^2$$

$$[2] \quad 3x^3 \cdot 4x \cdot 2$$

$$[3] \quad 6x^2 \cdot 5$$

$$[4] \quad 2x \cdot (2x^3)^2 \cdot 2x$$

$$[5] \quad (2x^2)^3 \cdot (x^2)^4$$

$$[6] \quad 2 \cdot (3x^3)^2 \cdot x$$

$$[7] \quad (3x^2)^2 \cdot 2x^2$$

$$[8] \quad (2x)^4 \cdot (x)^3 \cdot 5$$

$$[9] \quad (2x^3)^2 \cdot 5x$$

$$[10] \quad 3x^2 \cdot (2x^3)^2 \cdot x^4$$

$$[11] \quad (3x^2)^3 \cdot x^6$$

$$[12] \quad (5x^3)^2 \cdot x \cdot 3$$

Risolvere le seguenti operazioni sui monomi frazionari

$$[13] \quad \frac{1}{2}x^3 \cdot \frac{5}{4}x$$

$$[14] \quad \frac{3}{5}x^2 \cdot \frac{1}{2}x \cdot 1$$

$$[15] \quad 6x^3 \cdot \frac{1}{4}x$$

$$[16] \quad \frac{3}{5}x^2 \cdot \left(\frac{1}{3}\right)^2 \cdot \frac{3}{2}x^2$$

$$[17] \quad (2x^3)^3 \cdot \left(\frac{1}{2}x\right)^4$$

$$[18] \quad 6 \cdot \left(\frac{1}{3}x^2\right)^2 \cdot \frac{1}{2}x^2$$

$$[19] \quad (3x^3)^2 \cdot \frac{1}{2}x^2$$

$$[20] \quad (3x)^2 \cdot \left(\frac{1}{2}x\right)^4 \cdot 5$$

$$[21] \quad (2x^2)^2 \cdot \frac{3}{5}x$$

$$[22] \quad 3x^3 \cdot \left(\frac{1}{2}x^2\right)^2 \cdot \frac{2}{3}x^4$$

Risolvere le seguenti operazioni sui monomi con segno

$$[23] \quad 4x^2 \cdot (-3x^3)$$

$$[24] \quad -2x^3 \cdot (-3) \cdot (-x)$$

$$[25] \quad (-x)^3 \cdot x^2$$

$$[26] \quad (-2x^3)^2 \cdot (-x^2) \cdot (2)^3$$

$$[27] \quad (x^2)^3 \cdot (-x^3)^2$$

$$[28] \quad (2x)^2 \cdot (-3x^2)^2 \cdot x$$

$$[29] \quad -\frac{3}{4}x^2 \cdot \frac{8}{3}x^4$$

$$[30] \quad -\frac{1}{2}x \cdot \left(-\frac{1}{3}x^2\right) \cdot \left(-\frac{12}{5}\right)$$

$$[31] \quad -3x^2 \cdot \left(-\frac{1}{2}\right)$$

$$[32] \quad \left(-\frac{3}{2}x\right)^2 \cdot (x^2)^4 \cdot \left(-\frac{1}{2}\right)^2$$

$$[33] \quad \left(-\frac{3}{4}x^2\right)^2 \cdot \left(-\frac{2}{9}x\right)$$

$$[34] \quad \left(-\frac{1}{2}x^3\right)^2 \cdot \left(-\frac{1}{2}x^2\right)^2 \cdot \frac{4}{3}x^2$$

# SOLUZIONI

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|      |                  |      |                    |      |                   |      |                      |      |                     |      |                      |
|------|------------------|------|--------------------|------|-------------------|------|----------------------|------|---------------------|------|----------------------|
| [1]  | $20x^4$          | [2]  | $24x^4$            | [3]  | $30x^2$           | [4]  | $16x^8$              | [5]  | $8x^{14}$           | [6]  | $18x^7$              |
| [7]  | $18x^6$          | [8]  | $80x^7$            | [9]  | $20x^7$           | [10] | $12x^{12}$           | [11] | $27x^{12}$          | [12] | $75x^7$              |
| [13] | $\frac{5}{8}x^4$ | [14] | $\frac{3}{10}x^3$  | [15] | $\frac{3}{2}x^4$  | [16] | $\frac{1}{10}x^4$    | [17] | $\frac{1}{2}x^{13}$ | [18] | $\frac{1}{3}x^6$     |
| [19] | $\frac{9}{2}x^8$ | [20] | $\frac{45}{16}x^6$ | [21] | $\frac{12}{5}x^5$ | [22] | $\frac{1}{2}x^{11}$  |      |                     |      |                      |
| [23] | $-12x^5$         | [24] | $-6x^4$            | [25] | $-x^5$            | [26] | $-32x^8$             | [27] | $x^{12}$            | [28] | $36x^7$              |
| [29] | $-2x^6$          | [30] | $-\frac{2}{5}x^3$  | [31] | $\frac{3}{2}x^2$  | [32] | $\frac{9}{16}x^{10}$ | [33] | $-\frac{1}{8}x^5$   | [34] | $\frac{1}{12}x^{12}$ |