

1 Espressioni numeriche

1.1 Interi (capp. 1, 2)

| | | |
|---------------------------|--------------------|----------|
| $(2 + 3) \cdot 5 = \dots$ | [25] | p.3 |
| $2 + 3 \cdot 5 = \dots$ | [17] | p.3 |
| $5 \cdot (2 + 3) = \dots$ | [25] | p.3 |
| $5 \cdot 2 + 3 = \dots$ | [13] | p.3 |
| $3 - 2 = \dots$ | [1] | p.3 |
| $2 - 3 = \dots$ | [-1] | p.38, 39 |
| $3 + (-2) = \dots$ | [1] | p.40 |
| $2 + (-3) = \dots$ | [-1] | p.40 |
| $3 - (-2) = \dots$ | [5] | p.40 |
| $2 - (-3) = \dots$ | [5] | p.40 |
| $(2 - 3) \cdot 5 = \dots$ | [-5] | p.41 |
| $2 - 3 \cdot 5 = \dots$ | [-13] | p.41 |
| $5 \cdot (2 - 3) = \dots$ | [-5] | p.41 |
| $5 \cdot 2 - 3 = \dots$ | [7] | p.41 |
| $4 : 2 + 2 = \dots$ | [4] | p.3 |
| $2 + 2 : 2 = \dots$ | [3] | p.3 |
| $4 : 2 \cdot 2 = \dots$ | [4] | p.3 |
| $2^3 \cdot 2^5 = \dots$ | [2 ⁸] | p.8 |
| $2^4 : 2^2 = \dots$ | [2 ²] | p.8 |
| $2^5 \cdot 3^5 = \dots$ | [6 ⁵] | p.8 |
| $6^3 : 3^3 = \dots$ | [2 ³] | p.8 |
| $2^{3^2} = \dots$ | [2 ⁹] | p.3, p.8 |
| $(2^3)^2 = \dots$ | [2 ⁶] | p.8 |
| $[(2^2)^3]^2 = \dots$ | [2 ¹²] | p.8 |

1.2 Razionali (capp. 3, 4)

| | |
|--|----------------------------|
| $\frac{3}{2} = \dots$ | [1] p.69 |
| $+\frac{1}{3} = \dots$ | [1] p.69 |
| $+\frac{1}{5} = \dots$ | $[\frac{3}{5}]$ p.69 |
| $+\frac{1}{15} = \dots$ | $[\frac{16}{15}]$ p.69 |
| $-\frac{1}{4} = \dots$ | $[-\frac{4}{15}]$ p.69 |
| $-\frac{1}{15} = \dots$ | [0] p.69 |
| $\frac{2}{7} = \dots$ | $[\frac{2}{7}]$ p.69, 70 |
| $\frac{10}{21} = \dots$ | $[\frac{10}{21}]$ p.69, 70 |
| $\frac{14}{9} = \dots$ | $[\frac{14}{9}]$ p.69, 70 |
| $(\frac{2}{5})^3 = \dots$ | $[(\frac{2}{5})^3]$ p.70 |
| $(\frac{2}{5})^3 : (\frac{2}{5})^3 = \dots$ | $[(\frac{2}{5})^2]$ p.70 |
| $(\frac{2}{5})^5 : (\frac{2}{5})^7 = \dots$ | $[(\frac{5}{2})^2]$ p.70 |
| $(\frac{2}{3})^3 \cdot (\frac{2}{3})^{-3} = \dots$ | [1] p.70, 102 |
| $(\frac{2}{3})^3 \cdot (\frac{2}{3})^{-2} = \dots$ | [1] p.70, 102 |
| $(\frac{2}{3})^3 \cdot (\frac{2}{3})^{-3} = \dots$ | $[\frac{2}{3}]$ p.70, 102 |
| $(\frac{2}{3})^2 \cdot (\frac{2}{3})^{-3} = \dots$ | $[\frac{3}{2}]$ p.70, 102 |
| $(\frac{2}{3})^3 \cdot (\frac{3}{2})^3 = \dots$ | [1] p.70 |
| $(\frac{6}{5})^3 \cdot (\frac{3}{5})^3 = \dots$ | $[\frac{3^6}{5^3}]$ p.70 |
| $[(\frac{2}{3})^2]^3 = \dots$ | $[(\frac{2}{3})^6]$ p.70 |

1.3 Proporzioni cap.3

| | |
|-----------------------|----------------------------|
| $x : 3 = 2 : 3$ | $[x = 2]$ p.74 |
| $x : 6 = 7 : 8$ | $[x = \frac{21}{4}]$ p.74 |
| $5 : x = 4 : 3$ | $[x = \frac{15}{4}]$ p.74 |
| $5 : 3 = x : 2$ | $[x = \frac{10}{3}]$ p.74 |
| $11 : 5 = 9 : x$ | $[x = \frac{45}{11}]$ p.74 |
| $(x + 3) : 3 = 7 : 4$ | $[x = \frac{9}{4}]$ p.74 |
| $(x - 3) : 3 = 7 : 4$ | $[x = \frac{33}{4}]$ p.74 |

1.4 Percentuali cap.3

| | |
|--|--------------|
| <i>il 15% di 60 fa ...</i> | [9] p.75 |
| <i>35 corrisponde al 25% di ...</i> | [140] p.75 |
| <i>a quale percentuale di 80 corrisponde 30? ...</i> | [37.5%] p.75 |

1.5 Reali cap.4

1.5.1 Numeri periodici

Scrivi i numeri periodici come frazioni, e calcola il valore delle frazioni (senza usare la calcolatrice!)

| | | |
|-----------------------------|-------------------------------|-----------------|
| $\frac{1}{9} = \dots$ | $[0.\overline{1}]$ | <i>p.72, 73</i> |
| $\frac{1}{99} = \dots$ | $[0.\overline{01}]$ | <i>p.72, 73</i> |
| $\frac{1}{999} = \dots$ | $[0.\overline{001}]$ | <i>p.72, 73</i> |
| $\frac{1}{3} = \dots$ | $[0.\overline{3}]$ | <i>p.72, 73</i> |
| $\frac{2}{33} = \dots$ | $[0.\overline{06}]$ | <i>p.72, 73</i> |
| $\frac{71}{90} = \dots$ | $[0.\overline{78}]$ | <i>p.72, 73</i> |
| $0.\overline{3} = \dots$ | $[\frac{3}{9} = \frac{1}{3}]$ | <i>p.72, 73</i> |
| $0.\overline{71} = \dots$ | $[\frac{71}{99}]$ | <i>p.72, 73</i> |
| $0.21\overline{3} = \dots$ | $[\frac{192}{900}]$ | <i>p.72, 73</i> |
| $1.34\overline{23} = \dots$ | $[\frac{13289}{9900}]$ | <i>p.72, 73</i> |
| $0.\overline{9} = \dots$ | $[1]$ | <i>p.72, 73</i> |

1.5.2 Ordini di grandezza

Calcola l'ordine di grandezza dei seguenti numeri

| | | |
|-------------------|-------------|--------------|
| $0.00132 = \dots$ | $[10^{-3}]$ | <i>p.108</i> |
| $445 = \dots$ | $[10^3]$ | <i>p.108</i> |
| $7.125 = \dots$ | $[10^1]$ | <i>p.108</i> |

1.5.3 Errore assoluto, relativo, propagazione

...

2 Calcolo letterale

2.1 Monomi: operazioni livello base cap.7

| | | |
|---|--------------------------|------------|
| $3ax^2 + 2ax^2 = \dots$ | $[5ax^2]$ | p.198 |
| $3ax^2 - 2ax^2 = \dots$ | $[ax^2]$ | p.198 |
| $3ax^2 + 2ax^3 = \dots$ | $[3ax^2 + 2ax^3]$ | p.198 |
| $(-ab^2)^2 = \dots$ | $[a^2b^4]$ | p.200, 201 |
| $(-ab)^3 = \dots$ | $[-a^3b^3]$ | p.200, 201 |
| $(-\frac{1}{2}ax^3)^3 = \dots$ | $[\frac{1}{8}a^3x^9]$ | p.200, 201 |
| $(-2ax^2) \cdot (-3ay^3) = \dots$ | $[6a^2x^2y^3]$ | p.198, 199 |
| $(2a^2x^3) : (-3ax) = \dots$ | $[-\frac{2}{3}ax^2]$ | p.200 |
| $(-3ab^2y^3) : (2by) \cdot (7by) = \dots$ | $[-\frac{21}{2}ab^2y^3]$ | p.200 |
| $2ax^2 + (3ax^2) : (6ax) = \dots$ | $[2ax^2 + \frac{1}{2}x]$ | p.200 |

2.2 Polinomi: operazioni livello base cap.8

| | | |
|--|---|----------------------|
| $(3ax^2 - 2by + 2) + (4ax^2 + by - 2) = \dots$ | $[7ax^2 - by]$ | p.225 |
| $(3ax^2 - 2by + 2) - (3ax^2 + by - 2) = \dots$ | $[-3by + 4]$ | p.225 |
| $3 \cdot (3ay - z) = \dots$ | $[9ay - 3z]$ | p.225 |
| $-2 \cdot (2xy - 3) = \dots$ | $[-4xy + 6]$ | p.225 |
| $(2ax + y) \cdot (2x) = \dots$ | $[4ax^2 + 2xy]$ | p.225 |
| $(2a^2b - 3ab) \cdot (2b) + 6ab^2 = \dots$ | $[4a^2b^2]$ | p.225 |
| $(b - 1) \cdot (b + 1) = \dots$ | $[b^2 - 1]$ | p.225, 226, 227 |
| $(x + 1)^2 = \dots$ | $[x^2 + 2x + 1]$ | p.225, 226, 227 |
| $(x - 1)^3 = \dots$ | $[x^3 - 3x^2 + 3x - 1]$ | p.225, 226, 228 |
| $(b - 1) \cdot (b + 2) = \dots$ | $[b^2 + b - 2]$ | p.225, 226 |
| $(a + b + c)^2 = \dots$ | $[a^2 + b^2 + c^2 +$ $+2ab + 2bc + 2ac]$ | p.225, 226, 228, 229 |

2.3 Equazioni di primo grado cap.9

Risolvere le equazioni (o dire se sono indeterminate o impossibili)

| | |
|----------------------------|-------------------------------------|
| $x - 2 = 3$ | $[x = 5]$ p.260 |
| $x - 2 = 2$ | $[x = 4]$ p.260, 261 |
| $2x = 5$ | $[x = \frac{5}{2}]$ p.261 |
| $x = x - 3$ | $[impossibile]$ p.263 |
| $2x = 2(x - 3)$ | $[impossibile]$ p.263 |
| $3x = 2(x - 3)$ | $[x = -6]$ p.260, 261, 263 |
| $5x = 2(x - 3) + 3(x - 1)$ | $[impossibile]$ p.263 |
| $3x = 2(x - 3) + 3(x - 1)$ | $[x = \frac{9}{2}]$ p.260, 261, 263 |
| $3(x - 2) = 3x - 6$ | $[indeterminata]$ p.263 |