

# Operazioni con i numeri naturali

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Gli esercizi sono proposti in ordine di difficoltà crescente.

**nota:** in un file così lungo e complesso può accadere che sia presente un errore di diversa natura nonostante gli esercizi siano stati controllati più volte. Saremo grati di ricevere segnalazioni di eventuali refusi o suggerimenti di qualsiasi natura.

## 1. addizioni

1	$5 + 7$	12	2	$5 + 6$	11
3	$9 + 7$	16	4	$5 + 8$	13
5	$6 + 7$	13	6	$11 + 9$	20
7	$13 + 4$	17	8	$15 + 8$	23
9	$51 + 10$	61	10	$25 + 16$	41
11	$32 + 8$	40	12	$19 + 11$	30

## 2. sottrazioni

13	$4 - 2$	2	14	$9 - 6$	3
15	$25 - 7$	18	16	$8 - 5$	3
17	$13 - 4$	9	18	$67 - 14$	53
19	$51 - 10$	41	20	$24 - 11$	13
21	$91 - 13$	78	22	$35 - 12$	23
23	$76 - 54$	22	24	$88 - 54$	34

## 3. espressioni con addizioni e sottrazioni

25	$3 + 20 - 8$	15
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26	$7 + 5 - 11$	1
27	$6 + 5 - 11$	1
28	$8 + 6 - 13$	1
29	$40 - 25 + 15$	30
30	$21 - 12 + 30$	39
31	$7 - (8 - 5) + 7$	11
32	$4 + (7 - 2) + 31$	40
33	$50 - (35 - 15)$	30
34	$20 - 7 - (13 - 7)$	7
35	$76 + (18 - 8) - 7$	79
36	$42 - (40 - 12) - 9$	5
37	$90 + (52 - 22) - (75 - 20) - 21$	44
38	$55 - (15 - 4 + 11) + (55 - 12 - 7)$	69
39	$56 - (15 - 3 + 11) + (27 - 11 - 7)$	42
40	$(62 - 42 + 50) - (18 + 20) - 12$	20
41	$(13 + 23 - 3) - [(73 - 27) - (37 - 17)] + 12$	19

42	$[(18 + 38) + 19] - [(56 - 16) + 24] - 11$	0
43	$[(101 - 21) - 17] - 4 - [(13 + 15) + 17] - 4$	10
44	$[(93 - 23 + 16) - (24 + 12)] - [54 + 16 - (67 - 20)] - 7$	20

4. moltiplicazioni		
45	$13 \times 2$	26
47	$23 \times 4$	92
49	$11 \times 50$	550
51	$2 \times 45 \times 3$	270
53	$21 \times 4 \times 65$	5460
55	$4 \times 25 \times 5$	500
46	$18 \times 3$	54
48	$14 \times 9$	126
50	$45 \times 8$	360
52	$3 \times 15 \times 14$	630
54	$5 \times 22 \times 37$	4070
56	$6 \times 23 \times 67$	9246

5. divisioni		
57	$60:30$	2
59	$63:3$	21
61	$30:15$	2
63	$0:5$	0
65	$168:24$	7
58	$70:10$	7
60	$110:11$	10
62	$7:0$	priva di significato
64	$171:19$	9
66	$1288:23$	56

67	$9216: 36$	256		68	$4032: 288$	14
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## 6. potenze



69	$2^6: 2^4$	$2^2$
70	$(3)^3: (3^2)$	$3$
71	$3^3: 3^2 \cdot (3^4: 3^3)^2: [(3^2)^2: 3^3]$	$3^2$
72	$[(2^9: 2^6)^2: 2^4]^3: 2 + 2^3$	40
73	$[(3^4: 3)^2 \cdot 3]^3: (3^{17} \cdot 3^2)$	$3^2$
74	$[(6^2 \cdot 6^7)^3]^2: (6^3)^9$	$6^{27}$
75	$(3 \cdot 3^4 \cdot 3^7)^3: (3^3)^3$	$3^{27}$
76	$[(5^2 \cdot 5^5)^3: (5^9 \cdot 5^{11})]$	5
77	$[(7^{10} \cdot 7^2)^2: (7^{12})^2]$	1
78	$[(2 \cdot 2^2 \cdot 2^3)^3: (2^0 \cdot 2^2 \cdot 2^{11})]^5: (2^4)^5$	$2^5$
79	$[(6^5 \cdot 6^3 \cdot 6^2)^2]^3: 6^{58}$	$6^2$
80	$(3^4 \cdot 3^3 \cdot 3^0 \cdot 3^7) : (3^4)^3$	$3^2$
81	$\{(3^2)^8 \cdot 4^{16}: (2^4)^4\}: \{(18^2)^8: (3^4)^4\}$	1
82	$[(2^2)^2 \cdot 2^7: 2^6]^3 \cdot [3 \cdot (3^2)^4: 3^0: (3^3)^2]^5$	$6^{15}$

83	$(9^2 \cdot 2^2 : 6^2)^3 \cdot (9^2 \cdot 7^2 : 3^0 : 21^2)^3$	$3^{12}$
84	$(3^3 : 3^2 \cdot 3^5) \cdot 27^2 \cdot 9^2 : 81^3$	$3^4$
85	$(16^2 \cdot 8^3 \cdot 2^5) : [(27 : 3^3) \cdot 4^3 \cdot 2^3]$	$2^{13}$
86	$(4^2 \cdot 2^7 : 4^3)^3 \cdot (3 \cdot 9^4 : 3^0 : 27^2)^5$	$6^{15}$
87	$(4^2 \cdot 2^3 : 8)^2 \cdot [(9^2 \cdot 27 : 3^4)^3 : 9^0 : 3]$	$6^8$
88	$[(2^2)^2 \cdot 2^3 : 2^3]^2 \cdot \{[(3^2)^2 \cdot 3^3 : 3^4]^3 : 9^0 : 3\}$	$6^8$
89	$[(4^{10} \cdot 3^{10} : 12^8) : 2^2 - 3 \cdot 2 \cdot 5] \cdot 3 - 3^2$	9
90	$\{[(7 \cdot 7^5 \cdot 7^8)^5 : (70^9 : 10^9)^7]^6 : (7^5)^8\}^9 \cdot (8^3 \cdot 2^5 : 4^4)^3 : 14^9$	$14^9$
91	$\{[(6 \cdot 6^5 \cdot 6^8)^5 : (60^9 : 10^9)^7]^6 : (6^5)^8\}^9 : (2^5 \cdot 8^3 : 4^4)^3 \cdot 125^6$	$15^{18}$

## 7. espressioni



92	$2 + 5 \times 3$	17
93	$5 + 2 \times 3$	11
94	$2 + 3 \times 5$	17
95	$3 + 2 \times 5$	13
96	$(2 + 3) \times 5$	25
97	$(3 + 2) \times 5$	25

98	$18 - 4 \times 3$	6
99	$2 \times 16 - 18 + 40 : 20$	16
100	$24 : 2 + 3 - 5 \times 3$	0
101	$12 \times 2 + 3 - 5 \times 3$	12
102	$(29 + 22 + 12) : 3$	21
103	$2 \times 16 - 18 + 40 : 20$	16
104	$24 : 2 + 3 - 5 \times 3$	0
105	$(12 - 5 + 1) \times (6 - 6 + 9)$	72
106	$(25 - 2 - 15) : (4 + 6 - 2)$	1
107	$(5 + 7 - 3) \times (4 + 6 - 2)$	72
108	$(8 - 6 + 1) \times (7 - 5 + 4)$	18
109	$(2 + 4 + 1) \times (5 + 6 - 9)$	14
110	$(4 - 1 + 8 - 2) \times (13 + 5 - 11)$	63
111	$(75 - 71) \times 6 + 16 - (44 - 39) \times (2 + 5) + 3$	8
112	$[8 \times (53 - 46) + 2 + (15 - 8) - (33 - 26) \times (5 + 4)] : 2$	1
113	$[(7 + 5 - 9) \times 8 + 2 + (2 + 6) \times 4 - 6 \times (24 - 16)] : 5$	2

114	$27 + [4 + 4 \times (6 \times 7 - 37) + 9]: 3 \times (43 - 25): 6 + (31 - 26) \times 2$	70
115	$7 \times [34 - 4 \times (2 \times 7 - 7)] - 3 + (18 - 6): 2$	45
116	$202 - 2 \times \{63: [18 + (63: 9 - 35: 7): 2 + 2] + 350: 7 + 6 \times 8\}$	0
117	$(49: 7 + 27): [12: 6 + 15] + 2 \times [3 \times 4 - (5 + 44): 7 + 7]$	26
118	$[8 \times 7 - 3 \times 4]: [2 \times 3 + 5] + [3 \times (3 \times 4 + 5 \times 2) - 2 \times 5]$	60
119	$\{3 \times 4 \times [(15 + 4 \times 2 \times 13 - 7 \times 2 \times 7) - (1 + 3 \times 4 + 7)]\} - 4 \times 3$	0
120	$\{90: [6 \times 7 + 3] + 50: [5 + 5 \times 4] - 4\} \times (2 \times 16 - 18 + 40: 20)$	0
121	$8: \{(2 \times 3 + 8 \times 3): 5 - [5 \times 3 - (6 \times 6 - 45: 3): 3 - 24: 6]\}: 2$	2
122	$(6 \times 8): (3 \times 4) \times 20 - [4 \times 5 - (200: 4 - 5 \times 8 + 2 \times 4): 3 - 8] \times 5 - 6$	44
123	$\{8 \times 9 - 5 \times [(20: 5 - 3) \times 12 + 5: (19 - 2 \times 9) - 2]\}: 15 - 21\}$ : 46	1
124	$9 + 3 \times 3: (3 + 2 \times 3) - [13 - 2 \times (81: 9 - 36: 9)]: 3$	9
125	$2 \times (59 - 28 \times 2) + [2 \times (33: 11 + 3 \times 10 - 3 \times 8) - (54: 6 + 3): 2]: 4$	9
126	$5 \times 7: [(72: 8 + 2 \times 5 - 19): 2 + 2 \times (2 \times 13 - 4) - 37] + (5 \times 3 - 15): 6$	5
127	$(70: 2 + 1): \{12 - [150: 30 + (100: 4): 5 + 6]: 4 + 1\}: 4 - 1$	0
128	$\{30 \times 4 - 2 \times [28: 2 - 2 \times (2 \times 7 - 36: 4)] - 48: 12\}: [20 - 2 \times (54: 9 + 3)]$	54

129	$(27 - 21: 3):(24: 12 + 2) + 16: [7 + (2 \times 11 \times 2 + 5): 7 - 3 \times 4]$	13
130	$(2^2 - 2^0)^0$	1
131	$\{[(5^3)^4 \cdot 5^6]: 5^{18} + 3^{10}: 3^9\}: 4$	1
132	$(5 \cdot 3 + 15^7: 15^6):(3 \cdot 2) + 2^3 - (4^0)^6$	12
133	$[(42^3: 6^3): 7^2] \cdot [(3^2: 3^2)^5]^3 + (4^3 - 4): 2$	37
134	$4^2 + 2^2 \cdot 2^3: 2^4 + (3^3)^2: 3^4$	27
135	$2^{10} \cdot 2^8 + 3^{200} \cdot 3^{198} + 4^{302} \cdot 4^{300} + 5^{2222} \cdot 5^{2220} - 48$	6
136	$\{(3^6 \cdot 3^2 \cdot 3^4)^3: [(3^3)^4]^3 - 14^0\}^4 + 6^7: (1^7 \cdot 6^7)$	1
137	$(3^5 \cdot 12^5: 18^5 - 6 \cdot 5^3: 5^2)^3 \cdot (3^3: 1 - 5^2 + 3)^3 \cdot [2^4: 2 \cdot (5 \cdot 5^2)]$	$10^6$
138	$3 \times 21: (3^2 - 2) + (9: 3^2 + 4) \times 2^3$	49
139	$[(3^4 \cdot 27^3)^3: 243^3]: (3^4 \cdot 3^3)^2$	$3^{10}$
140	$[(8^5 \cdot 2^3)^4: 4^4]: (8^5: 16^2)$	$2^{57}$
141	$3^2 \times 5^2 - 7^2 + 2 \times (4 \times 2^3 - 5 \times 2^2) + 4^2: 2$	208
142	$10^0 + 2^2 \cdot 5^2 + [5^3 \cdot 10^3 \cdot 20^3]: [2^4 \cdot 5^4]^2$	111

143	$[(5^2 \cdot 5^5)^3 : (5^9 \cdot 5^{11})] : [(7^{10} \cdot 7^2)^2 : (7^{12})^2]$	5
144	$\{[(6^2 \cdot 6^7)^3]^2 : (6^3)^9\} : [(3 \cdot 3^4 \cdot 3^7)^3 : (3^3)^3]$	$2^{27}$
145	$[2^3 \times (3 + 3^2) - 3 \times 2^4 + (2^2 \times 5 - 3 \times 5) + 2^6 : 2^5 + 5] : 6$	10
146	$[2^4 + 5 - (2^6 : 2^3)^0]^2 : 2^2 \cdot [2 + (3)^5 : (3)^4 + (3)] \cdot (2)^2$	3200
147	$\{[(3^4 \cdot 3^3 \cdot 3^0 \cdot 3^7) : (3^4)^3] - [(5^3)^4 \cdot 5^6] : 5^{18} + 3^{10} : 3^9\} : 11$	1
148	$[3^3 \cdot 2^6 \cdot (2^2)^3] : [6^3 \cdot (2^2)^4] + [(42^3 : 6^3) : 7^2] \cdot [(3^2 : 3^2)^5]^3 + (4^3 - 4) : 2 : 5$	15

