

Scomposizione in fattori primi. Fattorizzazione.
Prime factorization. Factorization.

Scomponi in fattori primi i seguenti numeri.

1. soluzione	120	144	175	188
2. soluzione	184	224	225	248
3. soluzione	188	222	256	236
4. soluzione	250	255	260	270
5. soluzione	300	306	324	350
6. soluzione	408	450	464	498
7. soluzione	567	576	525	575
8. soluzione	648	675	624	615
9. soluzione	1350	1440	1690	1290
10. soluzione	2068	2016	2260	2220
11. soluzione	3024	3250	3060	3675
12. soluzione	4900	6375	6400	6825
13. soluzione	2400	4200	4500	5400

14. soluzione	138 000	132 000
15. soluzione	224 400	84 000
16. soluzione	184 000	460 000

Soluzioni

120 2 · 5 12 2 6 2 3 3 1	144 2 72 2 36 2 18 2 9 3 3 3 1	175 5 35 5 7 7 1	188 2 94 2 47 47 1
$120 = 2^3 \cdot 3 \cdot 5$	$144 = 2^4 \cdot 3^2$	$175 = 5^2 \cdot 7$	$188 = 2^2 \cdot 47$

184 2 92 2 46 2 23 23 1	224 2 112 2 56 2 28 2 14 2 7 7 1	225 3 75 3 25 5 5 5 1	248 2 124 2 62 2 31 31 1
$184 = 2^3 \cdot 23$	$224 = 2^6 \cdot 7$	$225 = 3^2 \cdot 5^2$	$248 = 2^3 \cdot 31$

188 2 94 2 47 47 1	222 2 111 3 37 37	256 2 128 2 64 2 32 2 16 2 8 2 4 2 2 2 1	236 2 118 2 59 59 1
$188 = 2^2 \cdot 47$	$222 = 2 \cdot 3 \cdot 37$	$256 = 2^8$	$236 = 2^2 \cdot 59$

$250 \mid 2 \cdot 5$ $25 \mid 5$ $5 \mid 5$ $1 \mid$ $250 = 2 \cdot 5^3$	$255 \mid 3$ $85 \mid 5$ $17 \mid 17$ $1 \mid$ $255 = 3 \cdot 5 \cdot 17$	$260 \mid 2 \cdot 5$ $26 \mid 2$ $13 \mid 13$ $1 \mid 1$ $260 = 2^2 \cdot 5 \cdot 13$	$270 \mid 2 \cdot 5$ $27 \mid 3$ $9 \mid 3$ $3 \mid 3$ $1 \mid$ $270 = 2 \cdot 3^3 \cdot 5$
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$300 \mid 2 \cdot 5$ $30 \mid 2 \cdot 5$ $3 \mid 3$ $1 \mid$ $60 = 2^2 \cdot 3 \cdot 5^2$	$306 \mid 2$ $153 \mid 3$ $51 \mid 3$ $17 \mid 17$ $1 \mid$ $306 = 2 \cdot 3^3 \cdot 17$	$324 \mid 2$ $162 \mid 2$ $81 \mid 3$ $27 \mid 3$ $9 \mid 3$ $3 \mid 3$ $1 \mid$ $324 = 2^2 \cdot 3^4$	$350 \mid 2 \cdot 5$ $35 \mid 5$ $7 \mid 7$ $1 \mid$ $350 = 2 \cdot 5^2 \cdot 7$
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$408 \mid 2$ $204 \mid 2$ $102 \mid 2$ $51 \mid 3$ $17 \mid 17$ $1 \mid$ $408 = 2^3 \cdot 3 \cdot 17$	$450 \mid 2 \cdot 5$ $45 \mid 3$ $15 \mid 3$ $5 \mid 5$ $1 \mid$ $450 = 2 \cdot 3^2 \cdot 5^2$	$464 \mid 2$ $232 \mid 2$ $116 \mid 2$ $58 \mid 2$ $29 \mid 29$ $1 \mid$ $464 = 2^4 \cdot 29$	$498 \mid 2$ $249 \mid 3$ $83 \mid 83$ $1 \mid$ $498 = 2 \cdot 3 \cdot 83$
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567 3 189 3 63 3 21 3 7 7 1	576 2 288 2 144 2 72 2 36 2 18 2 9 3·3 1	525 3 175 5 35 5 7 7 1	575 5 115 5 23 23 1
$567=3^4 \cdot 7$	$576=2^6 \cdot 3^2$	$525 = 3 \cdot 5^2 \cdot 7$	$575 = 5^2 \cdot 23$

648 2 324 2 162 2 81 3 27 3 9 3 3 3 1	675 3 225 3 75 3 25 5·5 1	624 2 312 2 156 2 78 2 39 3 13 13 1	615 3 205 5 41 41 1
$648=2^3 \cdot 3^4$	$675=3^3 \cdot 5^2$	$464 = 2^4 \cdot 3 \cdot 13$	$615 = 3 \cdot 5 \cdot 41$

1350 2·5 135 5 27 3 9 3 3 3 1	1440 2x5 144 2 72 2 36 2 18 2 9 3 3 3 1	1690 2·5 169 13 13 13 1	1290 2·5 129 3 43 43 1
$1350=2 \cdot 3^3 \cdot 5^2$	$1440 = 2^5 \cdot 3^2 \cdot 5$	$1690=2 \cdot 5 \cdot 13^3$	$1290 = 2 \cdot 3 \cdot 5 \cdot 43$

2068 2 1034 2 517 11 47 47 1	2016 2 1008 2 504 2 252 2 126 2 63 3 21 3·7 1	2260 2 1134 2 567 3 189 3 63 3 21 3 7 7 1	2220 2·5 222 2 111 3 37 37 1
$2068=2^2 \cdot 11 \cdot 47$	$2016=2^5 \cdot 3^2 \cdot 7$	$2260=2^2 \cdot 3^4 \cdot 7$	$2220 = 2^2 \cdot 3 \cdot 5 \cdot 37$

3024 2 1512 2 756 2 378 2 189 3 63 3 21 3·7 1	3250 2·5 325 5 65 5 13 13 1	3060 2·5 306 2 153 3 51 3 17 17 1	3675 3 1225 5 245 5 49 7 7 7 1
$3024=2^4 \cdot 3^3 \cdot 7$	$3250=2 \cdot 5^3 \cdot 13$	$3060 = 2^2 \cdot 3^2 \cdot 5 \cdot 17$	$3675 = 3 \cdot 5^2 \cdot 7^2$

4900 2·5 490 2·5 49 7 7 7 1	6375 3 2125 5 425 5 85 5 17 17 1	6400 2·5 640 2·5 64 2 32 2 16 2 8 2 4 2·2 1	6825 3 2275 5 455 5 91 7 13 13 1
$4900 = 2^2 \cdot 5^2 \cdot 7^2$	$6375 = 3 \cdot 5^3 \cdot 17$	$6400=2^8 \cdot 5^2$	$6825 = 3 \cdot 5^2 \cdot 7 \cdot 13$

2400 2·5	4200 2·5	4500 2·5	5400 2·5
240 2·5	420 2·5	450 2·5	540 2·5
24 2·2·2	42 2·3	45 3·3	54 2·3
3 3	7 7	5 5	9 3·3
1	1	1	1
$2400 = 2^5 \cdot 3 \cdot 5^2$	$4200 = 2^3 \cdot 3 \cdot 5^2 \cdot 7$	$4500 = 2^2 \cdot 3^2 \cdot 5^3$	$5400 = 2^3 \cdot 3^3 \cdot 5^2$

138000 2·5	132000 2·5
13800 2·5	13200 2·5
1380 2·5	1320 2·5
138 2	132 2
69 3	66 2
23 23	33 3
1	11 11
	1
$138000 = 2^4 \cdot 3 \cdot 5^3 \cdot 23$	$132000 = 2^5 \cdot 3 \cdot 5^3 \cdot 11$


224400 2·5	84000 2·5
22440 2·5	8400 2·5
2244 2	840 2·5
1122 2	84 2
561 3	42 2
187 11	21 3
17 17	7 7
1	1
$224400 = 2^4 \cdot 3 \cdot 5^2 \cdot 11 \cdot 17$	$84000 = 2^5 \cdot 3 \cdot 5^3 \cdot 7$



184000 2 · 5	460000 2 · 5
18400 2 · 5	46000 2 · 5
1840 2 · 5	4600 2 · 5
184 2	460 2 · 5
92 2	46 2
46 2	23 23
23 23	1
1	
184000 = 2⁶ · 5³ · 23	460 000 = 2⁵ · 5⁴ · 23


Tabella delle soluzioni da 1 a 1.000


en.wikipedia.org/wiki/Table_of_prime_factors#901_to_1000


Keywords

 *Matematica, Aritmetica, Divisibilità, Fattorizzazione, MCD, mcm, Massimo Comune Divisore, minimo comune multiplo, algoritmo di Euclide, esercizi con soluzioni*

  *Math, Arithmetic, Divisibility, Highest Common Factor, HCF, Greatest Common Factor, GCF, Lowest Common Multiple, LCM, Least Common Multiple, LCM, Greatest common divisor, GDC, Euclidean Algorithm*

 *Matemática, Aritmética, Máximo común divisor, mcd, m.c.d., Mínimo común múltiplo, mcm, m.c.m., algoritmo de Euclides.*

 *Mathématique, Arithmétique, Divisibilité, factorisation, Plus grand commun diviseur, PGDC, Plus petit commun multiple, PPCM, Algorithme d'Euclide*

 *Mathematik, Arithmetik, Größter gemeinsamer Teiler, kleinstes gemeinsames Vielfaches, Euklidischer Algorithmus*