

## Mathemagical Numbers 200 to 299

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. Our first three mathemagical number books are:

*Mathemagical Numbers 1 to 99*  
*Mathemagical Numbers 100 to 199*  
*Mathemagical Numbers 200 to 299*

Every natural number has interesting properties, In this unit you will find:

odd numbers and even numbers

prime numbers, twin primes, emirps, and palprimes

composite numbers and prime factorizations of composite numbers

factors and proper factors

sums of factors and sums of proper factors

deficient numbers, perfect numbers, and abundant numbers

square numbers and cubic numbers

triangular numbers and factorial numbers

Fibonacci numbers

palindromic numbers

Visit the [glossary](#) to see definitions of the above types of numbers.

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## Mathematical Numbers 200 to 299 | [TOC](#)

While browsing these numbers, if you are boggled by a word, visit the [Glossary](#).

### **200 (two hundred) | [TOC](#)**

200 is a natural number.

200 is the successor of 199.

200 is the predecessor of 201.

200 is an even number.

200 is a composite number.

Prime factorization:  $200 = 2 \times 2 \times 2 \times 5 \times 5$

Factors of 200: 1, 2, 4, 5, 8, 10, 20, 25, 40, 50, 100, 200

Proper factors of 200: 1, 2, 4, 5, 8, 10, 20, 25, 40, 50, 100

Sum of factors of 200 = 465

Sum of proper factors of 200 = 265

200 is an abundant number.

### **201 (two hundred one)**

201 is a natural number.

201 is the successor of 200.

201 is the predecessor of 202.

201 is an odd number.

201 is a composite number.

Prime factorization:  $201 = 3 \times 67$

Factors of 201: 1, 3, 67, 201

Proper factors of 201: 1, 3, 67

Sum of factors of 201 = 272

Sum of proper factors of 201 = 71

201 is a deficient number.

### **202 (two hundred two)**

202 is a natural number.

202 is the successor of 201.

202 is the predecessor of 203.

202 is an even number.

202 is a composite number.

Prime factorization:  $202 = 2 \times 101$

Factors of 202: 1, 2, 101, 202

Proper factors of 202: 1, 2, 101

Sum of factors of 202 = 306

Sum of proper factors of 202 = 104

202 is a deficient number.

202 is a palindromic number.

### **203 (two hundred three)**

203 is a natural number.

203 is the successor of 202.

203 is the predecessor of 204.

203 is an odd number.

203 is a composite number.

Prime factorization:  $203 = 7 \times 29$

Factors of 203: 1, 7, 29, 203

Proper factors of 203: 1, 7, 29

Sum of factors of 203 = 240

Sum of proper factors of 203 = 37

203 is a deficient number.

### **204 (two hundred four)**

204 is a natural number.

204 is the successor of 203.

204 is the predecessor of 205.

204 is an even number.

204 is a composite number.

Prime factorization:  $204 = 2 \times 2 \times 3 \times 17$

Factors of 204: 1, 2, 3, 4, 6, 12, 17, 34, 51, 68, 102, 204

Proper factors of 204: 1, 2, 3, 4, 6, 12, 17, 34, 51, 68, 102

Sum of factors of 204 = 504

Sum of proper factors of 204 = 300

204 is an abundant number.

### **205 (two hundred five)**

205 is a natural number.

205 is the successor of 204.

205 is the predecessor of 206.

205 is an odd number.

205 is a composite number.

Prime factorization:  $205 = 5 \times 41$

Factors of 205: 1, 5, 41, 205

Proper factors of 205: 1, 5, 41

Sum of factors of 205 = 252

Sum of proper factors of 205 = 47

205 is a deficient number.

### **206 (two hundred six)**

206 is a natural number.

206 is the successor of 205.

206 is the predecessor of 207.

206 is an even number.  
206 is a composite number.  
Prime factorization:  $206 = 2 \times 103$   
Factors of 206: 1, 2, 103, 206  
Proper factors of 206: 1, 2, 103  
Sum of factors of 206 = 312  
Sum of proper factors of 206 = 106  
206 is a deficient number.

### **207 (two hundred seven)**

207 is a natural number.  
207 is the successor of 206.  
207 is the predecessor of 208.  
207 is an odd number.  
207 is a composite number  
Prime factorization:  $207 = 3 \times 3 \times 23$   
Factors of 207: 1, 3, 9, 23, 69, 207  
Proper factors of 207: 1, 3, 9, 23, 69  
Sum of factors of 207 = 312  
Sum of proper factors of 207 = 105  
207 is a deficient number.

### **208 (two hundred eight)**

208 is a natural number.  
208 is the successor of 207.  
208 is the predecessor of 209.  
208 is an even number.  
208 is a composite number.  
Prime factorization:  $208 = 2 \times 2 \times 2 \times 2 \times 13$   
Factors of 208: 1, 2, 4, 8, 13, 16, 26, 52, 104, 208  
Proper factors of 208: 1, 2, 4, 8, 13, 16, 26, 52, 104  
Sum of factors of 208 = 434  
Sum of proper factors of 208 = 226  
208 is an abundant number.  
208 = sum of the squares of the first 5 prime numbers:  $208 = 2^2 + 3^2 + 5^2 + 7^2 + 11^2$

### **209 (two hundred nine)**

209 is a natural number.  
209 is the successor of 208.  
209 is the predecessor of 210.  
209 is an odd number.  
209 is a composite number.  
Prime factorization:  $209 = 11 \times 19$   
Factors of 209: 1, 11, 19, 209  
Proper factors of 209: 1, 11, 19

Sum of factors of 209 = 240  
Sum of proper factors of 209 = 31  
209 is a deficient number.

### **210 (two hundred ten) | [TOC](#)**

210 is a natural number.  
210 is the successor of 209.  
210 is the predecessor of 211.  
210 is an even number.  
210 is a composite number.  
Prime factorization:  $210 = 2 \times 3 \times 5 \times 7$   
Factors of 210: 1, 2, 3, 5, 6, 7, 10, 14, 15, 21, 30, 35, 42, 70, 105, 210  
Proper factors of 210: 1, 2, 3, 5, 6, 7, 10, 14, 15, 21, 30, 35, 42, 70, 105  
Sum of factors of 210 = 576  
Sum of proper factors of 210 = 366  
210 is an abundant number.  
210 is a triangular number.  
210 is the product of the first four prime numbers.  $210 = 2 \times 3 \times 5 \times 7$

### **211 (two hundred eleven)**

211 is a natural number.  
211 is the successor of 210.  
211 is the predecessor of 212.  
211 is an odd number.  
211 is a prime number.  
Factors of 211: 1, 211  
Proper factor of 211: 1  
Sum of factors of 211 = 212  
Sum of proper factors of 211 = 1  
211 is a deficient number.

### **212 (two hundred twelve)**

212 is a natural number.  
212 is the successor of 211.  
212 is the predecessor of 213.  
212 is an even number.  
212 is a composite number.  
Prime factorization:  $212 = 2 \times 2 \times 53$   
Factors of 212: 1, 2, 4, 53, 106, 212  
Proper factors of 212: 1, 2, 4, 53, 106  
Sum of factors of 212 = 378  
Sum of proper factors of 212 = 166  
212 is a deficient number.  
212 is a palindromic number.  
212 Fahrenheit is the boiling point of water.

**213 (two hundred thirteen)**

213 is a natural number.  
213 is the successor of 212.  
213 is the predecessor of 214.  
213 is an odd number.  
213 is a composite number.  
Prime factorization:  $213 = 3 \times 71$   
Factors of 213: 1, 3, 71, 213  
Proper factors of 213: 1, 3, 71  
Sum of factors of 213 = 288  
Sum of proper factors of 213 = 75  
213 is a deficient number

**214 (two hundred fourteen)**

214 is a natural number.  
214 is the successor of 213.  
214 is the predecessor of 215.  
214 is an even number.  
214 is a composite number.  
Prime factorization:  $214 = 2 \times 107$   
Factors of 214: 1, 2, 107, 214  
Proper factors of 214: 1, 2, 107  
Sum of factors of 214 = 324  
Sum of proper factors of 214 = 110  
214 is a deficient number.

**215 (two hundred fifteen)**

215 is a natural number.  
215 is the successor of 214.  
215 is the predecessor of 216.  
215 is an odd number.  
215 is a composite number.  
Prime factorization:  $215 = 5 \times 43$   
Factors of 215: 1, 5, 43, 215  
Proper factors of 215: 1, 5, 43  
Sum of factors of 215 = 264  
Sum of proper factors of 215 = 49  
215 is a deficient number.

**216 (two hundred sixteen)**

216 is a natural number.  
216 is the successor of 215.  
216 is the predecessor of 217.  
216 is an even number.

216 is a composite number.

Prime factorization:  $216 = 2 \times 2 \times 2 \times 3 \times 3 \times 3$

Factors of 216: 1, 2, 3, 4, 6, 8, 9, 12, 18, 24, 27, 36, 54, 72, 108, 216

Proper factors of 216: 1, 2, 3, 4, 6, 8, 9, 12, 18, 24, 27, 36, 54, 72, 108

Sum of factors of 216 = 600

Sum of proper factors of 216 = 384

216 is an abundant number.

216 is a cubic number.  $216 = 6^3$ .

$3^3 + 4^3 + 5^3 = 6^3$

216 is the number of possible outcomes in rolling 3D6 (three 6-faced dice).

### **217 (two hundred seventeen)**

217 is a natural number.

217 is the successor of 216.

217 is the predecessor of 218.

217 is an odd number.

217 is a composite number.

Prime factorization:  $217 = 7 \times 31$

Factors of 217: 1, 7, 31, 217

Proper factors of 217: 1, 7, 31

Sum of factors of 217 = 256

Sum of proper factors of 217 = 39

217 is a deficient number.

### **218 (two hundred eighteen)**

218 is a natural number.

218 is the successor of 217.

218 is the predecessor of 219.

218 is an even number.

218 is a composite number.

Prime factorization:  $218 = 2 \times 109$

Factors of 218: 1, 2, 109, 218

Proper factors of 218: 1, 2, 109

Sum of factors of 218 = 330

Sum of proper factors of 218 = 112

218 is a deficient number.

### **219 (two hundred nineteen)**

219 is a natural number.

219 is the successor of 218.

219 is the predecessor of 220

219 is an odd number..

219 is a composite number.

Prime factorization:  $219 = 3 \times 73$

Factors of 219: 1, 3, 73, 219



Proper factors of 219: 1, 3, 73  
Sum of factors of 219 = 296  
Sum of proper factors of 219 = 77  
219 is a deficient number.

### **220 (two hundred twenty) | [TOC](#)**

220 is a natural number.  
220 is the successor of 219.  
220 is the predecessor of 221.  
220 is an even number.  
220 is a composite number.  
Prime factorization:  $220 = 2 \times 2 \times 5 \times 11$   
Factors of 220: 1, 2, 4, 5, 10, 11, 20, 22, 44, 55, 110, 220  
Proper factors of 220: 1, 2, 4, 5, 10, 11, 20, 22, 44, 55, 110  
Sum of factors of 220 = 504  
Sum of proper factors of 220 = 284  
220 is an abundant number.

### **221 (two hundred twenty one)**

221 is a natural number.  
221 is the successor of 220.  
221 is the predecessor of 222.  
221 is an odd number.  
221 is a composite number.  
Prime factorization:  $221 = 13 \times 17$   
Factors of 221: 1, 13, 17, 221  
Proper factors of 221: 1, 13, 17  
Sum of factors of 221 = 252  
Sum of proper factors of 221 = 31  
221 is a deficient number.

### **222 (two hundred twenty two)**

222 is a natural number.  
222 is the successor of 221.  
222 is the predecessor of 223.  
222 is an even number.  
222 is a composite number.  
Prime factorization:  $222 = 2 \times 3 \times 37$   
Factors of 222: 1, 2, 3, 6, 37, 74, 111, 222  
Proper factors of 222: 1, 2, 3, 6, 37, 74, 111  
Sum of factors of 222 = 456  
Sum of proper factors of 222 = 234  
222 is an abundant number.  
222 is a palindromic number.

**223 (two hundred twenty three)**

223 is a natural number.

223 is the successor of 222.

223 is the predecessor of 224.

223 is an odd number.

223 is a prime number.

Factors of 223: 1, 223

Proper factor of 223: 1

Sum of factors of 223 = 224

Sum of proper factors of 223 = 1

223 is a deficient number.

**224 (two hundred twenty four)**

224 is a natural number.

224 is the successor of 223.

224 is the predecessor of 225.

224 is an even number.

224 is a composite number.

Prime factorization:  $224 = 2 \times 2 \times 2 \times 2 \times 2 \times 7$

Factors of 224: 1, 2, 4, 7, 8, 14, 16, 28, 32, 56, 112, 224

Proper factors of 224: 1, 2, 4, 7, 8, 14, 16, 28, 32, 56, 112

Sum of factors of 224 = 504

Sum of proper factors of 224 = 280

224 is an abundant number.

$224 = 2^3 + 3^3 + 4^3 + 5^3$

**225 (two hundred twenty five)**

225 is a natural number.

225 is the successor of 224.

225 is the predecessor of 226.

225 is an odd number.

225 is a composite number.

Prime factorization:  $225 = 3 \times 3 \times 5 \times 5$

Factors of 225: 1, 3, 5, 9, 15, 25, 45, 75, 225

Proper factors of 225: 1, 3, 5, 9, 15, 25, 45, 75

Sum of factors of 225 = 403

Sum of proper factors of 225 = 178

225 is a deficient number.

225 is a square number.  $225 = 25^2$

$225 = 1^3 + 2^3 + 3^3 + 4^3 + 5^3$

**226 (two hundred twenty six)**

226 is a natural number.

226 is the successor of 225.

226 is the predecessor of 227.

226 is an even number.  
226 is a composite number  
Prime factorization:  $226 = 2 \times 113$   
Factors of 226: 1, 2, 113, 226  
Proper factors of 226: 1, 2, 113  
Sum of factors of 226 = 342  
Sum of proper factors of 226 = 116  
226 is a deficient number.

### **227 (two hundred twenty seven)**

227 is a natural number.  
227 is the successor of 226.  
227 is the predecessor of 228.  
227 is an odd number.  
227 is a prime number.  
227 is a twin prime (with 229).  
Factors of 227: 1, 227  
Proper factor of 227: 1  
Sum of factors of 227 = 228  
Sum of proper factors of 227 = 1  
227 is a deficient number.

### **228 (two hundred twenty eight)**

228 is a natural number.  
228 is the successor of 227.  
228 is the predecessor of 229.  
228 is an even number.  
228 is a composite number.  
Prime factorization:  $228 = 2 \times 2 \times 3 \times 19$   
Factors of 228: 1, 2, 3, 4, 6, 12, 19, 38, 57, 76, 114, 228  
Proper factors of 228: 1, 2, 3, 4, 6, 12, 19, 38, 57, 76, 114  
Sum of factors of 228 = 560  
Sum of proper factors of 228 = 332  
228 is an abundant number.

### **229 (two hundred twenty nine)**

229 is a natural number.  
229 is the successor of 228.  
229 is the predecessor of 230.  
229 is an odd number.  
229 is a prime number.  
229 is a twin prime (with 227).  
Factors of 229: 1, 229  
Proper factor of 229: 1  
Sum of factors of 229 = 230

Sum of proper factors of 229 = 1  
229 is a deficient number.

### **230 (two hundred thirty) | [TOC](#)**

230 is a natural number.  
230 is the successor of 229.  
230 is the predecessor of 231.  
230 is an even number.  
230 is a composite number.  
Prime factorization:  $230 = 2 \times 5 \times 23$   
Factors of 230: 1, 2, 5, 10, 23, 46, 115, 230  
Proper factors of 230: 1, 2, 5, 10, 23, 46, 115  
Sum of factors of 230 = 432  
Sum of proper factors of 230 = 202  
230 is a deficient number.

### **231 (two hundred thirty one)**

231 is a natural number.  
231 is the successor of 230.  
231 is the predecessor of 232.  
231 is an odd number.  
231 is a composite number.  
Prime factorization:  $231 = 3 \times 7 \times 11$   
Factors of 231: 1, 3, 7, 11, 21, 33, 77, 231  
Proper factors of 231: 1, 3, 7, 11, 21, 33, 77  
Sum of factors of 231 = 384  
Sum of proper factors of 231 = 153  
231 is a deficient number.  
231 is a triangular number.

### **232 (two hundred thirty two)**

232 is a natural number.  
232 is the successor of 231.  
232 is the predecessor of 233.  
232 is an even number.  
232 is a composite number.  
Prime factorization:  $232 = 2 \times 2 \times 2 \times 29$   
Factors of 232: 1, 2, 4, 8, 29, 58, 116, 232  
Proper factors of 232: 1, 2, 4, 8, 29, 58, 116  
Sum of factors of 232 = 450  
Sum of proper factors of 232 = 218  
232 is a deficient number.  
232 is a palindromic number.

### **233 (two hundred thirty three)**

233 is a natural number.  
233 is the successor of 232.  
233 is the predecessor of 234.  
233 is an odd number.  
233 is a prime number.  
Factors of 233: 1, 233  
Proper factor of 233: 1  
Sum of factors of 233 = 234  
Sum of proper factors of 233 = 1  
233 is a deficient number.  
233 is a Fibonacci number.

### **234 (two hundred thirty four)**

234 is a natural number.  
234 is the successor of 233.  
234 is the predecessor of 235.  
234 is an even number.  
234 is a composite number.  
Prime factorization:  $234 = 2 \times 3 \times 3 \times 13$   
Factors of 234: 1, 2, 3, 6, 9, 13, 18, 26, 39, 78, 117, 234  
Proper factors of 234: 1, 2, 3, 6, 9, 13, 18, 26, 39, 78, 117  
Sum of factors of 234 = 546  
Sum of proper factors of 234 = 312  
234 is an abundant number.

### **235 (two hundred thirty five)**

235 is a natural number.  
235 is the successor of 234.  
235 is the predecessor of 236.  
235 is an odd number.  
235 is a composite number.  
Prime factorization:  $235 = 5 \times 47$   
Factors of 235: 1, 5, 47, 235  
Proper factors of 235: 1, 5, 47  
Sum of factors of 235 = 288  
Sum of proper factors of 235 = 53  
235 is a deficient number.  
U-235 is an isotope of uranium that was used in the first atomic bomb.

### **236 (two hundred thirty six)**

236 is a natural number.  
236 is the successor of 235.  
236 is the predecessor of 237.  
236 is an even number.  
236 is a composite number.

Prime factorization:  $236 = 2 \times 2 \times 59$   
Factors of 236: 1, 2, 4, 59, 118, 236  
Proper factors of 236: 1, 2, 4, 59, 118  
Sum of factors of 236 = 420  
Sum of proper factors of 236 = 184  
236 is a deficient number.

### **237 (two hundred thirty seven)**

237 is a natural number.  
237 is the successor of 236.  
237 is the predecessor of 238.  
237 is an odd number.  
237 is a composite number.  
Prime factorization:  $237 = 3 \times 79$   
Factors of 237: 1, 3, 79, 237  
Proper factors of 237: 1, 3, 79  
Sum of factors of 237 = 320  
Sum of proper factors of 237 = 83  
237 is a deficient number.

### **238 (two hundred thirty eight)**

238 is a natural number.  
238 is the successor of 237.  
238 is the predecessor of 239.  
238 is an even number.  
238 is a composite number.  
Prime factorization:  $238 = 2 \times 7 \times 17$   
Factors of 238: 1, 2, 7, 14, 17, 34, 119, 238  
Proper factors of 238: 1, 2, 7, 14, 17, 34, 119  
Sum of factors of 238 = 432  
Sum of proper factors of 238 = 194  
238 is a deficient number.

### **239 (two hundred thirty nine)**

239 is a natural number.  
239 is the successor of 238.  
239 is the predecessor of 240.  
239 is an odd number.  
239 is a prime number.  
239 is a twin prime (with 241).  
Factors of 239: 1, 239  
Proper factor of 239: 1  
Sum of factors of 239 = 240  
Sum of proper factors of 239 = 1  
239 is a deficient number.

**240 (two hundred forty) | [TOC](#)**

240 is a natural number.

240 is the successor of 239.

240 is the predecessor of 241.

240 is an even number.

240 is a composite number.

Prime factorization:  $240 = 2 \times 2 \times 2 \times 2 \times 3 \times 5$

Factors of 240: 1, 2, 3, 4, 5, 6, 8, 10, 12, 15, 16, 20, 24, 30, 40, 48, 60, 80, 120, 240

Proper factors of 240: 1, 2, 3, 4, 5, 6, 8, 10, 12, 15, 16, 20, 24, 30, 40, 48, 60, 80, 120

Sum of factors of 240 = 744 [greater than 3 times 240]

Sum of proper factors of 240 = 504 [greater than 2 times 240]

240 is an abundant number.

Sum of factors of 240  $> 3 \times 240$ .

Sum of proper factors of 240  $> 2 \times 240$ .

**241 (two hundred forty one)**

241 is a natural number.

241 is the successor of 240.

241 is the predecessor of 242.

241 is an odd number.

241 is a prime number.

241 is a twin prime (with 239).

Factors of 241: 1, 241

Proper factor of 241: 1

Sum of factors of 241 = 242

Sum of proper factors of 241 = 1

241 is a deficient number.

**242 (two hundred forty two)**

242 is a natural number.

242 is the successor of 241.

242 is the predecessor of 243.

242 is an even number.

242 is a composite number.

Prime factorization:  $242 = 2 \times 11 \times 11$

Factors of 242: 1, 2, 11, 22, 121, 242

Proper factors of 242: 1, 2, 11, 22, 121

Sum of factors of 242 = 399

Sum of proper factors of 242 = 157

242 is a deficient number.

242 is a palindromic number.

**243 (two hundred forty three)**

243 is a natural number.

243 is the successor of 242.

243 is the predecessor of 244.

243 is an odd number.

243 is a composite number.

Prime factorization:  $243 = 3 \times 3 \times 3 \times 3 \times 3$

Factors of 243: 1, 3, 9, 27, 81, 243

Proper factors of 243: 1, 3, 9, 27, 81

Sum of factors of 243 = 364

Sum of proper factors of 243 = 121

243 is a deficient number.

### **244 (two hundred forty four)**

244 is a natural number.

244 is the successor of 243.

244 is the predecessor of 245.

244 is an even number.

244 is a composite number.

Prime factorization:  $244 = 2 \times 2 \times 61$

Factors of 244: 1, 2, 4, 61, 122, 244

Proper factors of 244: 1, 2, 4, 61, 122

Sum of factors of 244 = 434

Sum of proper factors of 244 = 190

244 is a deficient number.

### **245 (two hundred forty five)**

245 is a natural number.

245 is the successor of 244.

245 is the predecessor of 246.

245 is an odd number.

245 is a composite number.

Prime factorization:  $245 = 5 \times 7 \times 7$

Factors of 245: 1, 5, 7, 35, 49, 245

Proper factors of 245: 1, 5, 7, 35, 49

Sum of factors of 245 = 342

Sum of proper factors of 245 = 97

245 is a deficient number.

### **246 (two hundred forty six)**

246 is a natural number.

246 is the successor of 245.

246 is the predecessor of 247.

246 is an even number.

246 is a composite number.

Prime factorization:  $246 = 2 \times 3 \times 41$

Factors of 246: 1, 2, 3, 6, 41, 82, 123, 246



Proper factors of 246: 1, 2, 3, 6, 41, 82, 123  
Sum of factors of 246 = 504  
Sum of proper factors of 246 = 258  
246 is an abundant number.

### **247 (two hundred forty seven)**

247 is a natural number.  
247 is the successor of 246.  
247 is the predecessor of 248.  
247 is an odd number.  
247 is a composite number.  
Prime factorization:  $247 = 13 \times 19$   
Factors of 247: 1, 13, 19, 247  
Proper factors of 247: 1, 13, 19  
Sum of factors of 247 = 280  
Sum of proper factors of 247 = 33  
247 is a deficient number.

### **248 (two hundred forty eight)**

248 is a natural number.  
248 is the successor of 247.  
248 is the predecessor of 249.  
248 is an even number.  
248 is a composite number.  
Prime factorization:  $248 = 2 \times 2 \times 2 \times 31$   
Factors of 248: 1, 2, 4, 8, 31, 62, 124, 248  
Proper factors of 248: 1, 2, 4, 8, 31, 62, 124  
Sum of factors of 248 = 480  
Sum of proper factors of 248 = 232  
248 is a deficient number.

### **249 (two hundred forty nine)**

249 is a natural number.  
249 is the successor of 248.  
249 is the predecessor of 250.  
249 is an odd number.  
249 is a composite number.  
Prime factorization:  $249 = 3 \times 83$   
Factors of 249: 1, 3, 83, 249  
Proper factors of 249: 1, 3, 83  
Sum of factors of 249 = 336  
Sum of proper factors of 249 = 87  
249 is a deficient number.

### **250 (two hundred fifty) | [TOC](#)**

250 is a natural number.  
250 is the successor of 249.  
250 is the predecessor of 251.  
250 is an even number.  
250 is a composite number.  
Prime factorization:  $250 = 2 \times 5 \times 5 \times 5$   
Factors of 250: 1, 2, 5, 10, 25, 50, 125, 250  
Proper factors of 250: 1, 2, 5, 10, 25, 50, 125  
Sum of factors of 250 = 468  
Sum of proper factors of 250 = 218  
250 is a deficient number.

### **251 (two hundred fifty one)**

251 is a natural number.  
251 is the successor of 250.  
251 is the predecessor of 252.  
251 is an odd number.  
251 is a prime number.  
Factors of 251: 1, 251  
Proper factor of 251: 1  
Sum of factors of 251 = 252  
Sum of proper factors of 251 = 1  
251 is a deficient number.

### **252 (two hundred fifty two)**

252 is a natural number.  
252 is the successor of 251.  
252 is the predecessor of 253.  
252 is an even number.  
252 is a composite number.  
Prime factorization:  $252 = 2 \times 2 \times 3 \times 3 \times 7$   
Factors of 252: 1, 2, 3, 4, 6, 7, 9, 12, 14, 18, 21, 28, 36, 42, 63, 84, 126, 252  
Proper factors 252: 1, 2, 3, 4, 6, 7, 9, 12, 14, 18, 21, 28, 36, 42, 63, 84, 126  
Sum of factors of 252 = 728  
Sum of proper factors = 476  
252 is an abundant number.  
252 is a palindromic number.

### **253 (two hundred fifty three)**

253 is a natural number.  
253 is the successor of 252.  
253 is the predecessor of 254.  
253 is an odd number.  
253 is a composite number.  
Prime factorization:  $253 = 11 \times 23$

Factors of 253: 1, 11, 23, 253  
Proper factors of 253: 1, 11, 23  
Sum of factors of 253 = 288  
Sum of proper factors of 253 = 35  
253 is a deficient number.  
253 is a triangular number.

### **254 (two hundred fifty four)**

254 is a natural number.  
254 is the successor of 253.  
254 is the predecessor of 255.  
254 is an even number.  
254 is a composite number.  
Prime factorization:  $254 = 2 \times 127$   
Factors of 254: 1, 2, 127, 254  
Proper factors of 254: 1, 2, 127  
Sum of factors of 254 = 384  
Sum of proper factors of 254 = 130  
254 is a deficient number.

### **255 (two hundred fifty five)**

255 is a natural number.  
255 is the successor of 254.  
255 is the predecessor of 256.  
255 is an odd number.  
255 is a composite number.  
Prime factorization:  $255 = 3 \times 5 \times 17$   
Factors of 255: 1, 3, 5, 15, 17, 51, 85, 255  
Proper factors of 255: 1, 3, 5, 15, 17, 51, 85  
Sum of factors of 255 = 432  
Sum of proper factors of 255 = 177  
255 is a deficient number.

### **256 (two hundred fifty six)**

256 is a natural number.  
256 is the successor of 255.  
256 is the predecessor of 257.  
256 is an even number.  
256 is a composite number.  
Prime factorization:  $256 = 2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 2$   
Factors of 256: 1, 2, 4, 8, 16, 32, 64, 128, 256  
Proper factors of 256: 1, 2, 4, 8, 16, 32, 64, 128  
Sum of factors of 256 = 511  
Sum of proper factors of 256 = 255  
256 is a deficient number.

256 is a square number:  $256 = 16^2$

256 is a power of 2:  $256 = 2^8$

A computer byte can have 256 different values.

### **257 (two hundred fifty seven)**

257 is a natural number.

257 is the successor of 256.

257 is the predecessor of 258.

257 is an odd number.

257 is a prime number.

Factors of 257: 1, 257

Proper factor of 257: 1

Sum of factors of 257 = 258

Sum of proper factors of 257 = 1

257 is a deficient number.

### **258 (two hundred fifty eight)**

258 is a natural number.

258 is the successor of 257.

258 is the predecessor of 259.

258 is an even number.

258 is a composite number.

Prime factorization:  $258 = 2 \times 3 \times 43$

Factors of 258: 1, 2, 3, 6, 43, 86, 129, 258

Proper factors of 258: 1, 2, 3, 6, 43, 86, 129

Sum of factors of 258 = 528

Sum of proper factors of 258 = 270

258 is an abundant number.

### **259 (two hundred fifty nine)**

259 is a natural number.

259 is the successor of 258.

259 is the predecessor of 260.

259 is an odd number.

259 is a composite number.

Prime factorization:  $259 = 7 \times 37$

Factors of 259: 1, 7, 37, 259

Proper factors of 259: 1, 7, 37

Sum of factors of 259 = 304

Sum of proper factors of 259 = 45

259 is a deficient number.

### **260 (two hundred sixty) | [TOC](#)**

260 is a natural number.

260 is the successor of 259.

260 is the predecessor of 261.

260 is an even number.

260 is a composite number.

Prime factorization:  $260 = 2 \times 2 \times 5 \times 13$

Factors of 260: 1, 2, 4, 5, 10, 13, 20, 26, 52, 65, 130, 260

Proper factors of 260: 1, 2, 4, 5, 10, 13, 20, 26, 52, 65, 130

Sum of factors of 260 = 588

Sum of proper factors of 260 = 328

260 is an abundant number.

### **261 (two hundred sixty one)**

261 is a natural number.

261 is the successor of 260.

261 is the predecessor of 262.

261 is an odd number.

261 is a composite number.

Prime factorization:  $261 = 3 \times 3 \times 29$

Factors of 261: 1, 3, 9, 29, 87, 261

Proper factors of 261: 1, 3, 9, 29, 87

Sum of factors of 261 = 390

Sum of proper factors of 261 = 129

261 is a deficient number.

### **262 (two hundred sixty two)**

262 is a natural number.

262 is the successor of 261.

262 is the predecessor of 263.

262 is an even number.

262 is a composite number.

Prime factorization:  $262 = 2 \times 131$

Factors of 262: 1, 2, 131, 262

Proper factors of 262: 1, 2, 131

Sum of factors of 262 = 396

Sum of proper factors of 262 = 134

262 is a deficient number.

262 is a palindromic number.

### **263 (two hundred sixty three)**

263 is a natural number.

263 is the successor of 262.

263 is the predecessor of 264.

263 is an odd number.

263 is a prime number.

Factors of 263: 1, 263

Proper factor of 263: 1

Sum of factors of 263 = 264  
Sum of proper factors of 263 = 1  
263 is a deficient number.

### **264 (two hundred sixty four)**

264 is a natural number.  
264 is the successor of 263.  
264 is the predecessor of 265.  
264 is an even number.  
264 is a composite number.  
Prime factorization:  $264 = 2 \times 2 \times 2 \times 3 \times 11$   
Factors of 264: 1, 2, 3, 4, 6, 8, 11, 12, 22, 24, 33, 44, 66, 88, 132, 264  
Proper factors of 264: 1, 2, 3, 4, 6, 8, 11, 12, 22, 24, 33, 44, 66, 88, 132  
Sum of factors of 264 = 720  
Sum of proper factors of 264 = 456  
264 is an abundant number.

### **265 (two hundred sixty five)**

265 is a natural number.  
265 is the successor of 264.  
265 is the predecessor of 266.  
265 is an odd number.  
265 is a composite number.  
Prime factorization:  $265 = 5 \times 53$   
Factors of 265: 1, 5, 53, 265  
Proper factors of 265: 1, 5, 53  
Sum of factors of 265 = 324  
Sum of proper factors of 265 = 59  
265 is a deficient number.

### **266 (two hundred sixty six)**

266 is a natural number.  
266 is the successor of 265.  
266 is the predecessor of 267.  
266 is an even number.  
266 is a composite number.  
Prime factorization:  $266 = 2 \times 7 \times 19$   
Factors of 266: 1, 2, 7, 14, 19, 38, 133, 266  
Proper factors of 266: 1, 2, 7, 14, 19, 38, 133  
Sum of factors of 266 = 480  
Sum of proper factors of 266 = 214  
266 is a deficient number.

### **267 (two hundred sixty seven)**

267 is a natural number.

267 is the successor of 266.  
267 is the predecessor of 268.  
267 is an odd number.  
267 is a composite number.  
Prime factorization:  $267 = 3 \times 89$   
Factors of 267: 1, 3, 89, 267  
Proper factors of 267: 1, 3, 89  
Sum of factors of 267 = 360  
Sum of proper factors of 267 = 93  
267 is a deficient number.

### **268 (two hundred sixty eight)**

268 is a natural number.  
268 is the successor of 267.  
268 is the predecessor of 269.  
268 is an even number.  
268 is a composite number.  
Prime factorization:  $268 = 2 \times 2 \times 67$   
Factors of 268: 1, 2, 4, 67, 134, 268  
Proper factors of 268: 1, 2, 4, 67, 134  
Sum of factors of 268 = 476  
Sum of proper factors of 268 = 208  
268 is a deficient number.

### **269 (two hundred sixty nine)**

269 is a natural number.  
269 is the successor of 268.  
269 is the predecessor of 270.  
269 is an odd number.  
269 is a prime number.  
269 is a twin prime (with 271).  
Factors of 269: 1, 269  
Proper factor of 269: 1  
Sum of factors of 269 = 270  
Sum of proper factors of 269 = 1  
269 is a deficient number.

### **270 (two hundred seventy) | [TOC](#)**

270 is a natural number.  
270 is the successor of 269.  
270 is the predecessor of 271.  
270 is an even number.  
270 is a composite number.  
Prime factorization:  $270 = 2 \times 3 \times 3 \times 3 \times 5$   
Factors of 270: 1, 2, 3, 5, 6, 9, 10, 15, 18, 27, 30, 45, 54, 90, 135, 270

Proper factors of 270: 1, 2, 3, 5, 6, 9, 10, 15, 18, 27, 30, 45, 54, 90, 135

Sum of factors of 270 = 720

Sum of proper factors of 270 = 450

270 is an abundant number.

### **271 (two hundred seventy one)**

271 is a natural number.

271 is the successor of 270.

271 is the predecessor of 272.

271 is an odd number.

271 is a prime number.

271 is a twin prime (with 269).

Factors of 271: 1, 271

Proper factor of 271: 1

Sum of factors of 271 = 272

Sum of proper factors of 271 = 1

271 is a deficient number.

### **272 (two hundred seventy two)**

272 is a natural number.

272 is the successor of 271.

272 is the predecessor of 273.

272 is an even number.

272 is a composite number.

Prime factorization:  $272 = 2 \times 2 \times 2 \times 2 \times 17$

Factors of 272: 1, 2, 4, 8, 16, 17, 34, 68, 136, 272

Proper factors of 272: 1, 2, 4, 8, 16, 17, 34, 68, 136

Sum of factors of 272 = 558

Sum of proper factors of 272 = 286

272 is an abundant number.

272 is a palindromic number.

### **273 (two hundred seventy three)**

273 is a natural number.

273 is the successor of 272.

273 is the predecessor of 274.

273 is an odd number.

273 is a composite number.

Prime factorization:  $273 = 3 \times 7 \times 13$

Factors of 273: 1, 3, 7, 13, 21, 39, 91, 273

Proper factors of 273: 1, 3, 7, 13, 21, 39, 91

Sum of factors of 273 = 448

Sum of proper factors of 273 = 175

273 is a deficient number.



**274 (two hundred seventy four)**

274 is a natural number.

274 is the successor of 273.

274 is the predecessor of 275.

274 is an even number.

274 is a composite number.

Prime factorization:  $274 = 2 \times 137$

Factors of 274: 1, 2, 137, 274

Proper factors of 274: 1, 2, 137

Sum of factors of 274 = 414

Sum of proper factors of 274 = 140

274 is a deficient number.

**275 (two hundred seventy five)**

275 is a natural number.

275 is the successor of 274.

275 is the predecessor of 276.

275 is an odd number.

275 is a composite number.

Prime factorization:  $275 = 5 \times 5 \times 11$

Factors of 275: 1, 5, 11, 25, 55, 275

Proper factors of 275: 1, 5, 11, 25, 55

Sum of factors of 275 = 372

Sum of proper factors of 275 = 97

275 is a deficient number.

**276 (two hundred seventy six)**

276 is a natural number.

276 is the successor of 275.

276 is the predecessor of 277.

276 is an even number.

276 is a composite number.

Prime factorization:  $276 = 2 \times 2 \times 3 \times 23$

Factors of 276: 1, 2, 3, 4, 6, 12, 23, 46, 69, 92, 138, 276

Proper factors of 276: 1, 2, 3, 4, 6, 12, 23, 46, 69, 92, 138

Sum of factors of 276 = 672

Sum of proper factors of 276 = 396

276 is an abundant number.

276 is a triangular number.

$276 = 1^5 + 2^5 + 3^5$

**277 (two hundred seventy seven)**

277 is a natural number.

277 is the successor of 276.

277 is the predecessor of 278.

277 is an odd number.  
277 is a prime number.  
Factors of 277: 1, 277  
Proper factor of 277: 1  
Sum of factors of 277 = 278  
Sum of proper factors of 277 = 1  
277 is a deficient number.

### **278 (two hundred seventy eight)**

278 is a natural number.  
278 is the successor of 277.  
278 is the predecessor of 279.  
278 is an even number.  
278 is a composite number.  
Prime factorization:  $278 = 2 \times 139$   
Factors of 278: 1, 2, 139, 278  
Proper factors of 278: 1, 2, 139  
Sum of factors of 278 = 420  
Sum of proper factors of 278 = 142  
278 is a deficient number.

### **279 (two hundred seventy nine)**

279 is a natural number.  
279 is the successor of 278.  
279 is the predecessor of 280.  
279 is an odd number.  
279 is a composite number.  
Prime factorization:  $279 = 3 \times 3 \times 31$   
Factors of 279: 1, 3, 9, 31, 93, 279  
Proper factors of 279: 1, 3, 9, 31, 93  
Sum of factors of 279 = 416  
Sum of proper factors of 279 = 137  
279 is a deficient number.

### **280 (two hundred eighty) | [TOC](#)**

280 is a natural number.  
280 is the successor of 279.  
280 is the predecessor of 281.  
280 is an even number.  
280 is a composite number.  
Prime factorization:  $280 = 2 \times 2 \times 2 \times 5 \times 7$   
Factors of 280: 1, 2, 4, 5, 7, 8, 10, 14, 20, 28, 35, 40, 56, 70, 140, 280  
Proper factors of 280: 1, 2, 4, 5, 7, 8, 10, 14, 20, 28, 35, 40, 56, 70, 140  
Sum of factors of 280 = 720  
Sum of proper factors of 280 = 440

280 is an abundant number.

### **281 (two hundred eighty one)**

281 is a natural number.

281 is the successor of 280.

281 is the predecessor of 282.

281 is an odd number.

281 is a prime number.

281 is a twin prime (with 283).

Factors of 281: 1, 281

Proper factor of 281: 1

Sum of factors of 281 = 282

Sum of proper factors of 281 = 1

281 is a deficient number.

### **282 (two hundred eighty two)**

282 is a natural number.

282 is the successor of 281.

282 is the predecessor of 283.

282 is an even number.

282 is a composite number.

Prime factorization:  $282 = 2 \times 3 \times 47$

Factors of 282: 1, 2, 3, 6, 47, 94, 141, 282

Proper factors of 282: 1, 2, 3, 6, 47, 94, 141

Sum of factors of 282 = 576

Sum of proper factors of 282 = 294

282 is an abundant number.

282 is a palindromic number.

### **283 (two hundred eighty three)**

283 is a natural number.

283 is the successor of 282.

283 is the predecessor of 284.

283 is an odd number.

283 is a prime number.

283 is a twin prime (with 281).

Factors of 283: 1, 283

Proper factor of 283: 1

Sum of factors of 283 = 284

Sum of proper factors of 283 = 1

283 is a deficient number.

### **284 (two hundred eighty four)**

284 is a natural number.

284 is the successor of 283.

284 is the predecessor of 285.  
284 is an even number.  
284 is a composite number.  
Prime factorization:  $284 = 2 \times 2 \times 71$   
Factors of 284: 1, 2, 4, 71, 142, 284  
Proper factors of 284: 1, 2, 4, 71, 142  
Sum of factors of 284 = 504  
Sum of proper factors of 284 = 220  
284 is a deficient number.

### **285 (two hundred eighty five)**

285 is a natural number.  
285 is the successor of 284.  
285 is the predecessor of 286.  
285 is an odd number.  
285 is a composite number.  
Prime factorization:  $285 = 3 \times 5 \times 19$   
Factors of 285: 1, 3, 5, 15, 19, 57, 95, 285  
Proper factors 285: 1, 3, 5, 15, 19, 57, 95  
Sum of factors of 285 = 480  
Sum of proper factors of 285 = 195  
285 is a deficient number.

### **286 (two hundred eighty six)**

286 is a natural number.  
286 is the successor of 285.  
286 is the predecessor of 287.  
286 is an even number.  
286 is a composite number.  
Prime factorization:  $286 = 2 \times 11 \times 13$   
Factors of 286: 1, 2, 11, 13, 22, 26, 143, 286  
Proper factors of 286: 1, 2, 11, 13, 22, 26, 143  
Sum of factors of 286 = 504  
Sum of proper factors of 286 = 218  
286 is a deficient number.

### **287 (two hundred eighty seven)**

287 is a natural number.  
287 is the successor of 286.  
287 is the predecessor of 288.  
287 is an odd number.  
287 is a composite number.  
Prime factorization:  $287 = 7 \times 41$   
Factors of 287: 1, 7, 41, 287  
Proper factors of 287: 1, 7, 41

Sum of factors of 287 = 336  
Sum of proper factors of 287 = 49  
287 is a deficient number.

### **288 (two hundred eighty eight)**

288 is a natural number.  
288 is the successor of 287.  
288 is the predecessor of 289.  
288 is an even number.  
288 is a composite number.  
Prime factorization:  $288 = 2 \times 2 \times 2 \times 2 \times 2 \times 3 \times 3$   
Factors of 288: 1, 2, 3, 4, 6, 8, 9, 12, 16, 18, 24, 32, 36, 48, 72, 96, 144, 288  
Proper factors of 288: 1, 2, 3, 4, 6, 8, 9, 12, 16, 18, 24, 32, 36, 48, 72, 96, 144  
Sum of factors of 288 = 819  
Sum of proper factors of 288 = 531  
288 is an abundant number.

### **289 (two hundred eighty nine)**

289 is a natural number.  
289 is the successor of 288.  
289 is the predecessor of 290.  
289 is an odd number.  
289 is a composite number.  
Prime factorization:  $289 = 17 \times 17$   
Factors of 289: 1, 17, 289  
Proper factors of 289: 1, 17  
Sum of factors of 289 = 307  
Sum of proper factors of 289 = 18  
289 is a deficient number.  
289 is a square number.  $289 = 17^2$ .

### **290 (two hundred ninety) | [TOC](#)**

290 is a natural number.  
290 is the successor of 289.  
290 is the predecessor of 291.  
290 is an even number.  
290 is a composite number.  
Prime factorization:  $290 = 2 \times 5 \times 29$   
Factors of 290: 1, 2, 5, 10, 29, 58, 145, 290  
Proper factors of 290: 1, 2, 5, 10, 29, 58, 145  
Sum of factors of 290 = 540  
Sum of proper factors of 290 = 250  
290 is a deficient number.

### **291 (two hundred ninety one)**

291 is a natural number.  
291 is the successor of 290.  
291 is an odd number.  
291 is the predecessor of 292.  
291 is a composite number.  
Prime factorization:  $291 = 3 \times 97$   
Factors of 291: 1, 3, 97, 291  
Proper factors of 291: 1, 3, 97  
Sum of factors of 291 = 392  
Sum of proper factors of 291 = 101  
291 is a deficient number.

### **292 (two hundred ninety two)**

292 is a natural number.  
292 is the successor of 291.  
292 is the predecessor of 293.  
292 is an even number.  
292 is a composite number.  
Prime factorization:  $292 = 2 \times 2 \times 73$   
Factors of 292: 1, 2, 4, 73, 146, 292  
Proper factors 292: 1, 2, 4, 73, 146  
Sum of factors of 292 = 518  
Sum of proper factors of 292 = 226  
292 is a deficient number.  
292 is a palindromic number.

### **293 (two hundred ninety three)**

293 is a natural number.  
293 is the successor of 292.  
293 is the predecessor of 294.  
293 is an odd number.  
293 is a prime number.  
Factors of 293: 1, 293  
Proper factor of 293: 1  
Sum of factors of 293 = 294  
Sum of proper factors of 293 = 1  
293 is a deficient number.

### **294 (two hundred ninety four)**

294 is a natural number.  
294 is the successor of 293.  
294 is the predecessor of 295.  
294 is an even number.  
294 is a composite number.  
Prime factorization:  $294 = 2 \times 3 \times 7 \times 7$

Factors of 294: 1, 2, 3, 6, 7, 14, 21, 42, 49, 98, 147, 294  
Proper factors of 294: 1, 2, 3, 6, 7, 14, 21, 42, 49, 98, 147  
Sum of factors of 294 = 684  
Sum of proper factors of 294 = 390  
294 is an abundant number.

### **295 (two hundred ninety five)**

295 is a natural number.  
295 is the successor of 294.  
295 is the predecessor of 296.  
295 is an odd number.  
295 is a composite number.  
Prime factorization:  $295 = 5 \times 59$   
Factors of 295: 1, 5, 59, 295  
Proper factors of 295: 1, 5, 59  
Sum of factors of 295 = 360  
Sum of proper factors of 295 = 65  
295 is a deficient number.

### **296 (two hundred ninety six)**

296 is a natural number.  
296 is the successor of 295.  
296 is the predecessor of 297.  
296 is a composite number.  
Prime factorization:  $296 = 2 \times 2 \times 2 \times 37$   
Factors of 296: 1, 2, 4, 8, 37, 74, 148, 296  
Proper factors of 296: 1, 2, 4, 8, 37, 74, 148  
Sum of factors of 296 = 570  
Sum of proper factors of 296 = 274  
296 is a deficient number.

### **297 (two hundred ninety seven)**

297 is a natural number.  
297 is the successor of 296.  
297 is the predecessor of 298.  
297 is an odd number.  
297 is a composite number.  
Prime factorization:  $297 = 3 \times 3 \times 3 \times 11$   
Factors of 297: 1, 3, 9, 11, 27, 33, 99, 297  
Proper factors of 297: 1, 3, 9, 11, 27, 33, 99  
Sum of factors of 297 = 480  
Sum of proper factors of 297 = 183  
297 is a deficient number.

### **298 (two hundred ninety eight)**

298 is a natural number.  
298 is the successor of 297.  
298 is the predecessor of 299  
298 is an even number.  
298 is a composite number.  
Prime factorization:  $298 = 2 \times 149$   
Factors of 298: 1, 2, 149, 298  
Proper factors of 298: 1, 2, 149  
Sum of factors of 298 = 450  
Sum of proper factors of 298 = 152  
298 is a deficient number.

**299 (two hundred ninety nine)**

299 is a natural number.  
299 is the successor of 298.  
299 is the predecessor of 300.  
299 is an odd number.  
299 is a composite number.  
Prime factorization:  $299 = 13 \times 23$   
Factors of 299: 1, 13, 23, 299  
Proper factors of 299: 1, 13, 23  
Sum of factors of 299 = 336  
Sum of proper factors of 299 = 37  
299 is a deficient number.



**Special Numbers 200 to 299 | [TOC](#)**

Boggled by a word? Browse the [Glossary](#) down yonder.

**Prime numbers:** 211, 223, 227, 229, 233, 239, 241, 251, 257, 263, 269, 271, 277, 281, 283, 293

**Palprimes:** none

**Emirps:** none

**Twin primes:** 227 and 229, 239 and 241, 269 and 271, 281 and 283

**Palindromic numbers:** 202, 212, 222, 232, 242, 252, 262, 272, 282, 292

**Square numbers:** 225, 256, 289

**Cubic number:** 216

**Triangular numbers:** 210, 231, 253, 276

**Factorial numbers:** none

**Power of 2:** 256

**Fibonacci number:** 233

**Abundant numbers:** 200, 204, 208, 210, 216, 220, 222, 224, 228, 240, 246, 252, 258, 260, 264, 270, 272, 276, 280, 282, 288, 294

**Perfect numbers:** none

**Deficient numbers:** 201, 202, 203, 205, 206, 207, 209, 211, 212, 213, 214, 215, 217, 218, 219, 221, 223, 225, 226, 227, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 241, 242, 243, 244, 245, 247, 248, 249, 250, 251, 253, 254, 255, 256, 257, 259, 261, 262, 263, 265, 266, 267, 268, 269, 271, 273, 274, 275, 277, 278, 279, 281, 283, 284, 285, 286, 287, 289, 290, 291, 292, 293, 295, 296, 297, 298, 299

## Special Numbers 1 to 299 | [TOC](#)

Boggled by a word? Browse the [Glossary](#) down yonder.

### The one and only 1.

**Prime numbers:** 2, 3, 5, 7, 11, 13, 17, 19, 23, 29, 31, 37, 41, 43, 47, 53, 59, 61, 67, 71, 73, 79, 83, 89, 97, 101, 103, 107, 109, 113, 127, 131, 137, 139, 149, 151, 157, 163, 167, 173, 179, 181, 191, 193, 197, 199, 211, 223, 227, 229, 233, 239, 241, 251, 257, 263, 269, 271, 277, 281, 283, 293

- To see the first 1000 prime numbers, go to <http://primes.utm.edu/lists/small/1000.txt>.

**Palprimes:** 2, 3, 5, 7, 11, 101, 131, 151, 181, 191

**Emirps:** 13, 17, 31, 37, 71, 73, 79, 97, 107, 113, 149, 157, 167, 179, 199

**Emirp pairs:** 13 and 31, 17 and 71, 37 and 73, 79 and 97, 107 and 701, 113 and 311, 149 and 941, 157 and 751, 167 and 761, 179 and 971, 199 and 991

**Twin primes:** 3 and 5, 5 and 7, 11 and 13, 17 and 19, 41 and 43, 71 and 73, 101 and 103, 107 and 109, 137 and 139, 149 and 151, 179 and 181, 191 and 193, 197 and 199, 227 and 229, 239 and 241, 269 and 271, 281 and 283

**Palindromic numbers:** 1, 2, 3, 4, 5, 6, 7, 8, 9, 11, 22, 33, 44, 55, 66, 77, 88, 99, 101, 111, 121, 131, 141, 151, 161, 171, 181, 191, 202, 212, 222, 232, 242, 252, 262, 272, 282, 292

**Square numbers:** 1, 4, 9, 16, 25, 36, 49, 64, 81, 100, 121, 144, 169, 196, 225, 256, 289

**Cubic numbers:** 1, 8, 27, 64, 125, 216

**Triangular numbers:** 1, 3, 6, 10, 15, 21, 28, 36, 45, 55, 66, 78, 91, 105, 120, 136, 153, 171, 190, 210, 231, 253, 276

- See **Triangular Number** [http://en.wikipedia.org/wiki/Triangular\\_number](http://en.wikipedia.org/wiki/Triangular_number).

**Factorial numbers:** 1, 2, 6, 24, 120

- See **Factorial** <http://en.wikipedia.org/wiki/Factorial>.

**Powers of 2:** 1, 2, 4, 8, 16, 32, 64, 128, 256

**Fibonacci numbers:** 1, 2, 3, 5, 8, 13, 21, 34, 55, 89, 144, 233

- See **Fibonacci Number** [http://en.wikipedia.org/wiki/Fibonacci\\_number](http://en.wikipedia.org/wiki/Fibonacci_number).

**Abundant numbers:** 12, 18, 20, 24, 30, 36, 40, 42, 48, 54, 56, 60, 66, 70, 72, 78, 80, 84, 88, 90, 96, 100, 102, 104, 112, 114, 120, 126, 132, 140, 144, 150, 156, 160, 162, 168, 176, 180, 186, 192, 196, 198, 200, 204, 208, 210, 216, 220, 222, 224, 228, 240, 246, 252, 258, 260, 264, 270, 272, 276, 280, 282, 288, 294

**Perfect numbers:** 6, 28

- See **Perfect Number** [http://en.wikipedia.org/wiki/Perfect\\_number](http://en.wikipedia.org/wiki/Perfect_number).

**Deficient numbers:** 2, 3, 4, 5, 7, 8, 9, 10, 11, 13, 14, 15, 16, 17, 19, 21, 22, 23, 25, 26, 27, 29, 31, 32, 33, 34, 35, 37, 38, 39, 41, 43, 44, 45, 46, 47, 49, 50, 51, 52, 53, 55, 57, 58, 59, 61, 62, 63, 64, 65, 67, 68, 69, 71, 73, 74, 75, 76, 77, 79, 81, 82, 83, 85, 86, 87, 89, 91, 92, 93, 94, 95, 97, 98, 99, 101, 103, 105, 106, 107, 108, 109, 110, 111, 113, 115, 116, 117, 118, 119, 121, 122, 123, 124, 125, 127, 128, 129, 130, 131, 133, 134, 135, 136, 137, 138, 139, 141, 142, 143, 145, 146, 147, 148, 149, 151, 152, 153, 154, 155, 157, 158, 159, 161, 163, 164, 165, 166, 167, 169, 170, 171, 172, 173, 174, 175, 177, 178, 179, 181, 182, 183, 184, 185, 187, 188, 189, 190, 191, 193, 194, 195, 197, 199, 201, 202, 203, 205, 206, 207, 209, 211, 212, 213, 214, 215, 217, 218, 219, 221, 223, 225, 226, 227, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 241, 242, 243, 244, 245, 247, 248, 249, 250, 251, 253, 254, 255, 256, 257, 259, 261, 262, 263, 265, 266, 267, 268, 269, 271, 273, 274, 275, 277, 278, 279, 281, 283, 284, 285, 286, 287, 289, 290, 291, 292, 293, 295, 296, 297, 298, 299

## TI-84 Program: Sum of Factors and Sum of Proper Factors | TOC

Calculating the sum of factors and sum of proper factors of a natural number is a tedious task, so we wrote a simple TI-84 Graphing Calculator to do this work. Here is our no-frills program.

TI-84 Program SUMFACT	Comments
<pre> :Lbl 1 :ClrHome : :Input "N = ",N :Disp " " : :0 → S : :For (K, 1, N) : :If N/K=int(N/K) :S + K → S : :End : :Disp "SUM F: ",S :Disp "SUM P: ",S-N :Disp " " : :Input "AGAIN? 0=YES: ",A : :If A=0 :Goto 1 :Stop :End                     </pre>	<p>Labels the top of the program Clears the display</p> <p>Enter value of natural number Put a line space in the display</p> <p>Set the sum of factors to zero</p> <p>Begin For loop</p> <p>If N/K is an integer add K to the sum of factors</p> <p>End of For loop</p> <p>Display sum of factors Calculate &amp; display sum of proper factors Put a line space in the display</p> <p>Enter 0 to go again</p> <p>If A= 0 go to Lbl 1 Else stop (A ≠ 0) End of program</p>
<p>Enter the program and run it. It begins by displaying <b>N =</b> and the cursor (■). Enter a natural number and press the <b>Enter</b> key.</p> <p>The program calculates and displays the sum of factors and sum of proper factors of N, and then asks if you want to do it again.</p> <p>To do again, enter 0 and press <b>Enter</b>. To quit enter any number other than 0 and press <b>Enter</b>.</p> <p>Over yonder is a run for N = 6 →</p>	<pre> N = 6  SUM F           12 SUM P           6  AGAIN? 0=YES:  ■                     </pre>

## Glossary | TOC

**abundant number** 1: a natural number  $n$  for which the sum of the factors of  $n$  is greater than  $2n$ . 2: a natural number  $n$  for which the sum of the proper factors of  $n$  is greater than  $n$ .

**composite number** 1: a natural number greater than 1 that has factors other than 1 and the number itself. 2: a natural number that has three or more *different* factors.

**cubic number** a number that can be written as the cube of a natural number. Cubic numbers are 1, 8, 27, 64, and so on.  $1 = 1^3$ ,  $8 = 2^3$ ,  $27 = 3^3$ ,  $64 = 4^3$ , and so on.

**deficient number** 1: a natural number  $n$  for which the sum of the factors of  $n$  is less than  $2n$ . 2: a natural number  $n$  for which the sum of the proper factors of  $n$  is less than  $n$ .

**emirp** 1: a prime number that is the reverse of a different prime number. 2: a prime number obtained by writing the digits of a different prime number in reverse order (right to left instead of left to right). Examples: 13 and 31, 37 and 73.

**factorial number** If  $n$  is a natural number, then  $n$  factorial, written  $n!$ , is the product of the natural numbers from 1 to  $n$ .  $1! = 1$ ,  $2! = 1 \times 2 = 2$ ,  $3! = 1 \times 2 \times 3 = 6$ ,  $4! = 1 \times 2 \times 3 \times 4 = 24$ .

**factor** If you multiply two or more natural numbers, the product is a natural number. The numbers you multiplied to obtain the product are factors of the product. Example:  $2 \times 3 = 6$ , so 2 and 3 are factors of 6. Example:  $2 \times 3 \times 5 = 30$ , so 2, 3, and 5 are factors of 30. If  $a \times b = c$ , then  $a$  and  $b$  are factors of  $c$ .

**Fibonacci number** the numbers 1, 1, 2, 3, 5, 8, 13, and so on. After the second number (1), each number is the sum of the preceding two numbers.

**natural number** the numbers 1, 2, 3, 4, 5, and so on forever. They keep going and going and going, never ending. Natural numbers are also called counting numbers and positive integers.

**palprime** a prime number that when reversed (read right to left instead of left to right) is the same prime number. Examples: 11, 101, 131, 151, 181, and 191.

**perfect number** 1: a natural number  $n$  for which the sum of the factors of  $n$  is equal to  $2n$ . 2: a natural number  $n$  for which the sum of the proper factors of  $n$  is equal to  $n$ .

**predecessor** Every natural number *except 1* has a predecessor that is one less than the natural number. If  $n$  is a natural number, then its predecessor is  $n - 1$ . Examples: 1 is the predecessor of 2, 2 is the predecessor of 3, 3 is the predecessor of 4, ... , 98 is the predecessor of 99.

**prime number** 1: a natural number that has exactly two different factors. 2: a natural number greater than 1 whose only factors are 1 and the number itself.

**proper factor** a factor of a natural number other than the number itself. A proper factor of a number is a factor that is less than the number.

**square number** a number that can be written as the square of a natural number. Square numbers are 1, 4, 9, 16, 25, and so on. In this unit, we use a caret (^) followed by 2 to indicate the square of a number.  $1 = 1^2$ ,  $4 = 2^2$ ,  $9 = 3^2$ ,  $16 = 4^2$ , and so on.

**successor** Every natural number has a successor that is one more than the natural number. If  $n$  is a natural number, then its successor is  $n + 1$ . Examples: 2 is the successor of 1, 3 is the successor of 2, 4 is the successor of 3, ..., 99 is the successor of 98.

**triangular number** the numbers 1, 3, 6, 10, 15, and so on. Triangular numbers can be represented by triangles having 1 dot, 3 dots, 6 dots, 10 dots, 15 dots, and so on. The first triangular number is 1. A triangular number greater than 1 is the sum of consecutive natural numbers beginning with 1. Examples:  $3 = 1 + 2$ ,  $6 = 1 + 2 + 3$ ,  $10 = 1 + 2 + 3 + 4$ .

**twin primes** prime numbers that are a distance of exactly 2 from each other. The first two twin primes are 3 and 5. The second pair of twin primes are 5 and 7. [3, 5, and 7 are a **prime triple**. We have not identified prime triples in this book.]

**Zocchihedron:** a 100-faced die with faces numbered 0 to 99 that resembles a golf ball. It was designed by Lou Zocchi for use in role-playing games such as *Dungeons & Dragons*. Use it to roll percentages from 0% to 99%. Or use 0 to mean 100% and roll percentages from 1% to 100%. See Zocchihedron at <http://en.wikipedia.org/wiki/Zocchihedron>.



Zocchihedron

**END**