Prime factorization of the first 1000 integers

The factorization of the first 1000 integers					
1 = 1 $6 = 2^{1} 3^{1}$ $11 = 11^{1}$ $16 = 2^{4}$ $21 = 3^{1} 7^{1}$ $26 = 2^{1} 13^{1}$ $31 = 31^{1}$ $36 = 2^{2} 3^{2}$ $41 = 41^{1}$ $46 = 2^{1} 23^{1}$ $51 = 3^{1} 17^{1}$ $56 = 2^{3} 7^{1}$ $61 = 61^{1}$ $66 = 2^{1} 3^{1} 11^{1}$ $71 = 71^{1}$ $76 = 2^{2} 19^{1}$ $81 = 3^{4}$ $86 = 2^{1} 43^{1}$ $91 = 7^{1} 13^{1}$ $96 = 2^{5} 3^{1}$	$2 = 2^{1}$ $7 = 7^{1}$ $12 = 2^{2} 3^{1}$ $17 = 17^{1}$ $22 = 2^{1} 11^{1}$ $27 = 3^{3}$ $32 = 2^{5}$ $37 = 37^{1}$ $42 = 2^{1} 3^{1} 7^{1}$ $47 = 47^{1}$ $52 = 2^{2} 13^{1}$ $57 = 3^{1} 19^{1}$ $62 = 2^{1} 31^{1}$ $67 = 67^{1}$ $72 = 2^{3} 3^{2}$ $77 = 7^{1} 11^{1}$ $82 = 2^{1} 41^{1}$ $87 = 3^{1} 29^{1}$ $92 = 2^{2} 23^{1}$ $97 = 97^{1}$	$3 = 3^{1}$ $8 = 2^{3}$ $13 = 13^{1}$ $18 = 2^{1}3^{2}$ $23 = 23^{1}$ $28 = 2^{2}7^{1}$ $33 = 3^{1}11^{1}$ $38 = 2^{1}19^{1}$ $43 = 43^{1}$ $48 = 2^{4}3^{1}$ $53 = 53^{1}$ $58 = 2^{1}29^{1}$ $63 = 3^{2}7^{1}$ $68 = 2^{2}17^{1}$ $73 = 73^{1}$ $78 = 2^{1}3^{1}13^{1}$ $83 = 83^{1}$ $88 = 2^{3}11^{1}$ $93 = 3^{1}31^{1}$ $98 = 2^{1}7^{2}$	$\begin{array}{l} 4 = 2^2 \\ 9 = 3^2 \\ 14 = 2^1 7^1 \\ 19 = 19^1 \\ 24 = 2^3 3^1 \\ 29 = 29^1 \\ 34 = 2^1 17^1 \\ 39 = 3^1 13^1 \\ 44 = 2^2 11^1 \\ 49 = 7^2 \\ 54 = 2^1 3^3 \\ 59 = 59^1 \\ 64 = 2^6 \\ 69 = 3^1 23^1 \\ 74 = 2^1 37^1 \\ 79 = 79^1 \\ 84 = 2^2 3^1 7^1 \\ 89 = 89^1 \\ 94 = 2^1 47^1 \\ 99 = 3^2 11^1 \end{array}$	$5 = 5^{1}$ $10 = 2^{1} 5^{1}$ $15 = 3^{1} 5^{1}$ $20 = 2^{2} 5^{1}$ $25 = 5^{2}$ $30 = 2^{1} 3^{1} 5^{1}$ $35 = 5^{1} 7^{1}$ $40 = 2^{3} 5^{1}$ $45 = 3^{2} 5^{1}$ $50 = 2^{1} 5^{2}$ $55 = 5^{1} 11^{1}$ $60 = 2^{2} 3^{1} 5^{1}$ $65 = 5^{1} 13^{1}$ $70 = 2^{1} 5^{1} 7^{1}$ $75 = 3^{1} 5^{2}$ $80 = 2^{4} 5^{1}$ $85 = 5^{1} 17^{1}$ $90 = 2^{1} 3^{2} 5^{1}$ $95 = 5^{1} 19^{1}$ $100 = 2^{2} 5^{2}$	
$\begin{array}{llllllllllllllllllllllllllllllllllll$	$102 = 2^{1} 3^{1} 17^{1}$ $107 = 107^{1}$ $112 = 2^{4}7^{1}$ $117 = 3^{2} 13^{1}$ $122 = 2^{1} 61^{1}$ $127 = 127^{1}$ $132 = 2^{2} 3^{1} 11^{1}$ $137 = 137^{1}$ $142 = 2^{1}71^{1}$ $147 = 3^{1}7^{2}$ $152 = 2^{3} 19^{1}$ $157 = 157^{1}$ $162 = 2^{1} 3^{4}$ $167 = 167^{1}$ $172 = 2^{2} 43^{1}$ $177 = 3^{1} 59^{1}$ $182 = 2^{1}7^{1} 13^{1}$ $187 = 11^{1}17^{1}$ $192 = 2^{6} 3^{1}$ $197 = 197^{1}$	$103 = 103^{1}$ $108 = 2^{2} 3^{3}$ $113 = 113^{1}$ $118 = 2^{1} 59^{1}$ $123 = 3^{1} 41^{1}$ $128 = 2^{7}$ $133 = 7^{1} 19^{1}$ $138 = 2^{1} 3^{1} 23^{1}$ $143 = 11^{1} 13^{1}$ $148 = 2^{2} 37^{1}$ $153 = 3^{2} 17^{1}$ $158 = 2^{1} 79^{1}$ $163 = 163^{1}$ $168 = 2^{3} 3^{1} 7^{1}$ $173 = 173^{1}$ $178 = 2^{1} 89^{1}$ $188 = 2^{2} 47^{1}$ $193 = 193^{1}$ $198 = 2^{1} 3^{2} 11^{1}$	$\begin{array}{l} 104 \ = \ 2^3 \ 13^1 \\ 109 \ = \ 109^1 \\ 114 \ = \ 2^1 \ 3^1 \ 19^1 \\ 119 \ = \ 7^1 \ 17^1 \\ 124 \ = \ 2^2 \ 31^1 \\ 129 \ = \ 3^1 \ 43^1 \\ 134 \ = \ 2^1 \ 67^1 \\ 139 \ = \ 139^1 \\ 144 \ = \ 2^4 \ 3^2 \\ 149 \ = \ 149^1 \\ 154 \ = \ 2^1 \ 7^1 \ 11^1 \\ 159 \ = \ 3^1 \ 53^1 \\ 164 \ = \ 2^2 \ 41^1 \\ 169 \ = \ 13^2 \\ 174 \ = \ 2^1 \ 3^1 \ 29^1 \\ 179 \ = \ 179^1 \\ 184 \ = \ 2^3 \ 23^1 \\ 189 \ = \ 3^3 \ 7^1 \\ 194 \ = \ 2^1 \ 97^1 \\ 199 \ = \ 199^1 \end{array}$	$\begin{array}{llllllllllllllllllllllllllllllllllll$	

$206 = 2^{1} 103^{1}$ $211 = 211^{1}$ $216 = 2^{3}3^{3}$ $221 = 13^{1}17^{1}$ $226 = 2^{1}113^{1}$ $231 = 3^{1}7^{1}11^{1}$ $236 = 2^{2}59^{1}$ $241 = 241^{1}$ $246 = 2^{1}3^{1}41^{1}$ $251 = 251^{1}$ $256 = 2^{8}$ $261 = 3^{2}29^{1}$ $266 = 2^{1}7^{1}19^{1}$ $271 = 271^{1}$ $276 = 2^{2}3^{1}23^{1}$ $281 = 281^{1}$ $286 = 2^{1}11113^{1}$ $291 = 3^{1}97^{1}$ $296 = 2^{3}37^{1}$	$207 = 3^{2} 23^{1}$ $212 = 2^{2} 53^{1}$ $217 = 7^{1} 31^{1}$ $222 = 2^{1} 3^{1} 37^{1}$ $227 = 227^{1}$ $232 = 2^{3} 29^{1}$ $237 = 3^{1} 79^{1}$ $242 = 2^{1} 11^{2}$ $247 = 13^{1} 19^{1}$ $252 = 2^{2} 3^{2} 7^{1}$ $257 = 257^{1}$ $262 = 2^{1} 131^{1}$ $267 = 3^{1} 89^{1}$ $272 = 2^{4} 17^{1}$ $277 = 277^{1}$ $282 = 2^{1} 3^{1} 47^{1}$ $287 = 7^{1} 41^{1}$ $297 = 3^{3} 11^{1}$	$208 = 2^{4}13^{1}$ $213 = 3^{1}71^{1}$ $218 = 2^{1}109^{1}$ $223 = 223^{1}$ $228 = 2^{2}3^{1}19^{1}$ $233 = 233^{1}$ $238 = 2^{1}7^{1}17^{1}$ $243 = 3^{5}$ $248 = 2^{3}31^{1}$ $253 = 11^{1}23^{1}$ $258 = 2^{1}3^{1}43^{1}$ $263 = 263^{1}$ $263 = 2^{2}67^{1}$ $273 = 3^{1}7^{1}13^{1}$ $278 = 2^{1}139^{1}$ $283 = 283^{1}$ $288 = 2^{5}3^{2}$ $293 = 293^{1}$ $298 = 2^{1}149^{1}$	$209 = 11^{1} 19^{1}$ $214 = 2^{1} 107^{1}$ $219 = 3^{1} 73^{1}$ $224 = 2^{5} 7^{1}$ $229 = 229^{1}$ $234 = 2^{1} 3^{2} 13^{1}$ $239 = 239^{1}$ $244 = 2^{2} 61^{1}$ $249 = 3^{1} 83^{1}$ $254 = 2^{1} 127^{1}$ $259 = 7^{1} 37^{1}$ $264 = 2^{3} 3^{1} 11^{1}$ $269 = 269^{1}$ $274 = 2^{1} 137^{1}$ $279 = 3^{2} 31^{1}$ $284 = 2^{2} 71^{1}$ $289 = 17^{2}$ $294 = 2^{1} 3^{1} 7^{2}$ $299 = 13^{1} 23^{1}$	$210 = 2^{1}3^{1}5^{1}7^{1}$ $215 = 5^{1}43^{1}$ $220 = 2^{2}5^{1}11^{1}$ $225 = 3^{2}5^{2}$ $230 = 2^{1}5^{1}23^{1}$ $235 = 5^{1}47^{1}$ $240 = 2^{4}3^{1}5^{1}$ $245 = 5^{1}7^{2}$ $250 = 2^{1}5^{3}$ $255 = 3^{1}5^{1}17^{1}$ $260 = 2^{2}5^{1}13^{1}$ $265 = 5^{1}53^{1}$ $275 = 5^{2}11^{1}$ $280 = 2^{3}5^{1}7^{1}$ $285 = 3^{1}5^{1}19^{1}$ $290 = 2^{1}5^{1}29^{1}$ $295 = 5^{1}59^{1}$ $300 = 2^{2}3^{1}5^{2}$
$\begin{array}{r} 301 = 7^{1} 43^{1} \\ 306 = 2^{1} 3^{2} 17^{1} \\ 311 = 311^{1} \\ 316 = 2^{2} 79^{1} \\ 321 = 3^{1} 107^{1} \\ 326 = 2^{1} 163^{1} \\ 331 = 331^{1} \\ 336 = 2^{4} 3^{1} 7^{1} \\ 341 = 11^{1} 31^{1} \\ 346 = 2^{1} 173^{1} \\ 351 = 3^{3} 13^{1} \\ 356 = 2^{2} 89^{1} \\ 361 = 19^{2} \\ 366 = 2^{1} 3^{1} 61^{1} \\ 371 = 7^{1} 53^{1} \\ 376 = 2^{3} 47^{1} \\ 381 = 3^{1} 127^{1} \\ 386 = 2^{1} 193^{1} \\ 391 = 17^{1} 23^{1} \\ 396 = 2^{2} 3^{2} 11^{1} \end{array}$	$302 = 2^{1} 151^{1}$ $307 = 307^{1}$ $312 = 2^{3} 3^{1} 13^{1}$ $317 = 317^{1}$ $322 = 2^{1} 7^{1} 23^{1}$ $327 = 3^{1} 109^{1}$ $332 = 2^{2} 83^{1}$ $337 = 337^{1}$ $342 = 2^{1} 3^{2} 19^{1}$ $347 = 347^{1}$ $352 = 2^{5} 11^{1}$ $357 = 3^{1} 7^{1} 17^{1}$ $362 = 2^{1} 181^{1}$ $367 = 367^{1}$ $372 = 2^{2} 3^{1} 31^{1}$ $377 = 13^{1} 29^{1}$ $382 = 2^{1} 191^{1}$ $387 = 3^{2} 43^{1}$ $392 = 2^{3} 7^{2}$ $397 = 397^{1}$	$303 = 3^{1} 101^{1}$ $308 = 2^{2}7^{1} 11^{1}$ $313 = 313^{1}$ $318 = 2^{1}3^{1}53^{1}$ $323 = 17^{1}19^{1}$ $328 = 2^{3}41^{1}$ $333 = 3^{2}37^{1}$ $348 = 2^{2}3^{1}29^{1}$ $353 = 353^{1}$ $358 = 2^{1}179^{1}$ $363 = 3^{1}11^{2}$ $368 = 2^{4}23^{1}$ $373 = 373^{1}$ $378 = 2^{1}3^{3}7^{1}$ $383 = 383^{1}$ $388 = 2^{2}97^{1}$ $393 = 3^{1}131^{1}$ $398 = 2^{1}199^{1}$	$304 = 2^{4}19^{1}$ $309 = 3^{1}103^{1}$ $314 = 2^{1}157^{1}$ $319 = 11^{1}29^{1}$ $324 = 2^{2}3^{4}$ $329 = 7^{1}47^{1}$ $334 = 2^{1}167^{1}$ $344 = 2^{3}43^{1}$ $344 = 2^{3}49^{1}$ $354 = 2^{1}3^{1}59^{1}$ $359 = 359^{1}$ $364 = 2^{2}7^{1}13^{1}$ $369 = 3^{2}41^{1}$ $374 = 2^{1}11^{1}17^{1}$ $379 = 379^{1}$ $384 = 2^{7}3^{1}$ $389 = 389^{1}$ $399 = 3^{1}7^{1}19^{1}$	$305 = 5^{1} 61^{1}$ $310 = 2^{1} 5^{1} 31^{1}$ $315 = 3^{2} 5^{1} 7^{1}$ $320 = 2^{6} 5^{1}$ $325 = 5^{2} 13^{1}$ $330 = 2^{1} 3^{1} 5^{1} 11^{1}$ $335 = 5^{1} 67^{1}$ $340 = 2^{2} 5^{1} 17^{1}$ $345 = 3^{1} 5^{1} 23^{1}$ $350 = 2^{1} 5^{2} 7^{1}$ $355 = 5^{1} 71^{1}$ $360 = 2^{3} 3^{2} 5^{1}$ $365 = 5^{1} 73^{1}$ $370 = 2^{1} 5^{1} 37^{1}$ $375 = 3^{1} 5^{3}$ $380 = 2^{2} 5^{1} 19^{1}$ $385 = 5^{1} 7^{1} 11^{1}$ $390 = 2^{1} 3^{1} 5^{1} 13^{1}$ $395 = 5^{1} 79^{1}$ $400 = 2^{4} 5^{2}$

 $201 = 3^{1} 67^{1} \qquad 202 = 2^{1} 101^{1} \qquad 203 = 7^{1} 29^{1} \qquad 204 = 2^{2} 3^{1} 17^{1} \qquad 205 = 5^{1} 41^{1}$

$\begin{array}{l} 401 \ = \ 401^1 \\ 406 \ = \ 2^1 7^1 29^1 \\ 411 \ = \ 3^1 137^1 \\ 416 \ = \ 2^5 13^1 \\ 421 \ = \ 421^1 \\ 426 \ = \ 2^1 3^1 71^1 \\ 431 \ = \ 431^1 \\ 436 \ = \ 2^2 109^1 \\ 441 \ = \ 3^2 7^2 \\ 446 \ = \ 2^1 223^1 \\ 451 \ = \ 11^1 41^1 \\ 456 \ = \ 2^3 3^1 19^1 \\ 461 \ = \ 461^1 \\ 466 \ = \ 2^1 233^1 \\ 471 \ = \ 3^1 157^1 \\ 476 \ = \ 2^2 7^1 17^1 \\ 481 \ = \ 13^1 37^1 \\ 486 \ = \ 2^1 3^5 \\ 491 \ = \ 491^1 \\ 496 \ = \ 2^4 31^1 \end{array}$	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	$403 = 13^{1} 31^{1}$ $408 = 2^{3} 3^{1} 17^{1}$ $413 = 7^{1} 59^{1}$ $418 = 2^{1} 11^{1} 19^{1}$ $423 = 3^{2} 47^{1}$ $428 = 2^{2} 107^{1}$ $433 = 433^{1}$ $438 = 2^{1} 3^{1} 73^{1}$ $443 = 443^{1}$ $448 = 2^{6} 7^{1}$ $453 = 3^{1} 151^{1}$ $458 = 2^{1} 229^{1}$ $468 = 2^{2} 3^{2} 13^{1}$ $473 = 11^{1} 43^{1}$ $478 = 2^{1} 239^{1}$ $488 = 2^{3} 61^{1}$ $493 = 17^{1} 29^{1}$ $498 = 2^{1} 3^{1} 83^{1}$	$404 = 2^{2} 101^{1}$ $409 = 409^{1}$ $414 = 2^{1} 3^{2} 23^{1}$ $419 = 419^{1}$ $424 = 2^{3} 53^{1}$ $429 = 3^{1} 11^{1} 13^{1}$ $434 = 2^{1} 7^{1} 31^{1}$ $439 = 439^{1}$ $444 = 2^{2} 3^{1} 37^{1}$ $449 = 449^{1}$ $454 = 2^{1} 227^{1}$ $459 = 3^{3} 17^{1}$ $469 = 7^{1} 67^{1}$ $474 = 2^{1} 3^{1} 79^{1}$ $479 = 479^{1}$ $484 = 2^{2} 112^{2}$ $489 = 3^{1} 163^{1}$ $494 = 2^{1} 13^{1} 19^{1}$ $499 = 499^{1}$	$\begin{array}{rl} 405 &=& 3^4 5^1 \\ 410 &=& 2^1 5^1 41^1 \\ 415 &=& 5^1 83^1 \\ 420 &=& 2^2 3^1 5^1 7^1 \\ 425 &=& 5^2 17^1 \\ 430 &=& 2^1 5^1 43^1 \\ 435 &=& 3^1 5^1 29^1 \\ 440 &=& 2^3 5^1 11^1 \\ 445 &=& 5^1 89^1 \\ 450 &=& 2^1 3^2 5^2 \\ 455 &=& 5^1 7^1 13^1 \\ 460 &=& 2^2 5^1 23^1 \\ 465 &=& 3^1 5^1 31^1 \\ 470 &=& 2^1 5^1 47^1 \\ 475 &=& 5^2 19^1 \\ 480 &=& 2^5 3^1 5^1 \\ 485 &=& 5^1 97^1 \\ 490 &=& 2^1 5^1 7^2 \\ 495 &=& 3^2 5^1 11^1 \\ 500 &=& 2^2 5^3 \end{array}$
$\begin{array}{l} 501 &= 3^{1} 167^{1} \\ 506 &= 2^{1} 11^{1} 23^{1} \\ 511 &= 7^{1} 73^{1} \\ 516 &= 2^{2} 3^{1} 43^{1} \\ 521 &= 521^{1} \\ 526 &= 2^{1} 263^{1} \\ 531 &= 3^{2} 59^{1} \\ 536 &= 2^{3} 67^{1} \\ 541 &= 541^{1} \\ 546 &= 2^{1} 3^{1} 7^{1} 13^{1} \\ 551 &= 19^{1} 29^{1} \\ 556 &= 2^{2} 139^{1} \\ 561 &= 3^{1} 11^{1} 17^{1} \\ 566 &= 2^{1} 283^{1} \\ 571 &= 571^{1} \\ 576 &= 2^{6} 3^{2} \\ 581 &= 7^{1} 83^{1} \\ 586 &= 2^{1} 293^{1} \\ 591 &= 3^{1} 197^{1} \\ 596 &= 2^{2} 149^{1} \end{array}$	$502 = 2^{1} 251^{1}$ $507 = 3^{1} 13^{2}$ $512 = 2^{9}$ $517 = 11^{1} 47^{1}$ $522 = 2^{1} 3^{2} 29^{1}$ $527 = 17^{1} 31^{1}$ $532 = 2^{2} 7^{1} 19^{1}$ $542 = 2^{1} 271^{1}$ $547 = 547^{1}$ $552 = 2^{3} 3^{1} 23^{1}$ $557 = 557^{1}$ $562 = 2^{1} 281^{1}$ $567 = 3^{4} 7^{1}$ $572 = 2^{2} 11^{1} 13^{1}$ $577 = 577^{1}$ $582 = 2^{1} 3^{1} 97^{1}$ $587 = 587^{1}$ $592 = 2^{4} 37^{1}$ $597 = 3^{1} 199^{1}$	$503 = 503^{1}$ $508 = 2^{2} 127^{1}$ $513 = 3^{3} 19^{1}$ $518 = 2^{1} 7^{1} 37^{1}$ $523 = 523^{1}$ $528 = 2^{4} 3^{1} 11^{1}$ $533 = 13^{1} 41^{1}$ $538 = 2^{1} 269^{1}$ $543 = 3^{1} 181^{1}$ $548 = 2^{2} 137^{1}$ $553 = 7^{1} 79^{1}$ $558 = 2^{1} 3^{2} 31^{1}$ $563 = 563^{1}$ $568 = 2^{3} 71^{1}$ $573 = 3^{1} 191^{1}$ $578 = 2^{1} 17^{2}$ $583 = 11^{1} 53^{1}$ $588 = 2^{2} 3^{1} 7^{2}$ $593 = 593^{1}$ $598 = 2^{1} 13^{1} 23^{1}$	$504 = 2^{3} 3^{2} 7^{1}$ $509 = 509^{1}$ $514 = 2^{1} 257^{1}$ $519 = 3^{1} 173^{1}$ $524 = 2^{2} 131^{1}$ $529 = 23^{2}$ $534 = 2^{1} 3^{1} 89^{1}$ $539 = 7^{2} 11^{1}$ $544 = 2^{5} 17^{1}$ $549 = 3^{2} 61^{1}$ $554 = 2^{1} 277^{1}$ $559 = 13^{1} 43^{1}$ $564 = 2^{2} 3^{1} 47^{1}$ $569 = 569^{1}$ $574 = 2^{1} 7^{1} 41^{1}$ $579 = 3^{1} 193^{1}$ $584 = 2^{3} 73^{1}$ $589 = 19^{1} 31^{1}$ $599 = 599^{1}$	$505 = 5^{1} 101^{1}$ $510 = 2^{1} 3^{1} 5^{1} 17^{1}$ $515 = 5^{1} 103^{1}$ $520 = 2^{3} 5^{1} 13^{1}$ $525 = 3^{1} 5^{2} 7^{1}$ $530 = 2^{1} 5^{1} 53^{1}$ $540 = 2^{2} 3^{3} 5^{1}$ $540 = 2^{2} 3^{3} 5^{1}$ $545 = 5^{1} 109^{1}$ $550 = 2^{1} 5^{2} 11^{1}$ $555 = 3^{1} 5^{1} 37^{1}$ $560 = 2^{4} 5^{1} 7^{1}$ $565 = 5^{1} 113^{1}$ $570 = 2^{1} 3^{1} 5^{1} 19^{1}$ $575 = 5^{2} 23^{1}$ $580 = 2^{2} 5^{1} 29^{1}$ $585 = 3^{2} 5^{1} 13^{1}$ $590 = 2^{1} 5^{1} 59^{1}$ $595 = 5^{1} 7^{1} 17^{1}$ $600 = 2^{3} 3^{1} 5^{2}$

$\begin{array}{l} 606 &= 2^1 3^1 101^1 \\ 611 &= 13^1 47^1 \\ 616 &= 2^3 7^1 11^1 \\ 621 &= 3^3 23^1 \\ 626 &= 2^1 313^1 \\ 631 &= 631^1 \\ 636 &= 2^2 3^1 53^1 \\ 641 &= 641^1 \\ 646 &= 2^1 17^1 19^1 \\ 651 &= 3^1 7^1 31^1 \\ 656 &= 2^4 41^1 \\ 661 &= 661^1 \\ 666 &= 2^1 3^2 37^1 \\ 671 &= 11^1 61^1 \\ 676 &= 2^2 13^2 \\ 681 &= 3^1 227^1 \\ 686 &= 2^1 7^3 \\ 691 &= 691^1 \\ 696 &= 2^3 3^1 29^1 \end{array}$	$\begin{array}{l} 607 &= 607^1 \\ 612 &= 2^2 3^2 17^1 \\ 617 &= 617^1 \\ 622 &= 2^1 311^1 \\ 627 &= 3^1 11^1 19^1 \\ 632 &= 2^3 79^1 \\ 637 &= 7^2 13^1 \\ 642 &= 2^1 3^1 107^1 \\ 647 &= 647^1 \\ 652 &= 2^2 163^1 \\ 657 &= 3^2 73^1 \\ 662 &= 2^1 331^1 \\ 667 &= 23^1 29^1 \\ 677 &= 677^1 \\ 682 &= 2^1 11^1 31^1 \\ 687 &= 3^1 229^1 \\ 692 &= 2^2 173^1 \\ 697 &= 17^1 41^1 \end{array}$	$\begin{array}{l} 608 &= 2^5 19^1 \\ 613 &= 613^1 \\ 618 &= 2^1 3^1 103^1 \\ 623 &= 7^1 89^1 \\ 628 &= 2^2 157^1 \\ 633 &= 3^1 211^1 \\ 638 &= 2^1 11^1 29^1 \\ 643 &= 643^1 \\ 648 &= 2^3 3^4 \\ 653 &= 653^1 \\ 658 &= 2^1 7^1 47^1 \\ 663 &= 3^1 13^1 17^1 \\ 668 &= 2^2 167^1 \\ 673 &= 673^1 \\ 678 &= 2^1 3^1 113^1 \\ 683 &= 683^1 \\ 688 &= 2^4 43^1 \\ 693 &= 3^2 7^1 11^1 \\ 698 &= 2^1 349^1 \end{array}$	$\begin{array}{l} 609 = 3^{1}7^{1}29^{1}\\ 614 = 2^{1}307^{1}\\ 619 = 619^{1}\\ 624 = 2^{4}3^{1}13^{1}\\ 629 = 17^{1}37^{1}\\ 634 = 2^{1}317^{1}\\ 639 = 3^{2}71^{1}\\ 644 = 2^{2}7^{1}23^{1}\\ 644 = 2^{2}7^{1}23^{1}\\ 649 = 11^{1}59^{1}\\ 654 = 2^{1}3^{1}109^{1}\\ 659 = 659^{1}\\ 664 = 2^{3}83^{1}\\ 669 = 3^{1}223^{1}\\ 679 = 7^{1}97^{1}\\ 684 = 2^{2}3^{2}19^{1}\\ 689 = 13^{1}53^{1}\\ 694 = 2^{1}347^{1}\\ 699 = 3^{1}233^{1}\\ \end{array}$	$\begin{array}{l} 610 &= 2^1 5^1 61^1 \\ 615 &= 3^1 5^1 41^1 \\ 620 &= 2^2 5^1 31^1 \\ 625 &= 5^4 \\ 630 &= 2^1 3^2 5^1 7^1 \\ 635 &= 5^1 127^1 \\ 640 &= 2^7 5^1 \\ 645 &= 3^1 5^1 43^1 \\ 650 &= 2^1 5^2 13^1 \\ 655 &= 5^1 131^1 \\ 660 &= 2^2 3^1 5^1 11^1 \\ 665 &= 5^1 7^1 19^1 \\ 670 &= 2^1 5^1 67^1 \\ 675 &= 3^3 5^2 \\ 680 &= 2^3 5^1 17^1 \\ 685 &= 5^1 137^1 \\ 690 &= 2^1 3^1 5^1 23^1 \\ 695 &= 5^1 139^1 \\ 700 &= 2^2 5^2 7^1 \end{array}$
$\begin{array}{l} 701 = 701^1 \\ 706 = 2^1 353^1 \\ 711 = 3^2 79^1 \\ 716 = 2^2 179^1 \\ 721 = 7^1 103^1 \\ 726 = 2^1 3^1 11^2 \\ 731 = 17^1 43^1 \\ 736 = 2^5 23^1 \\ 741 = 3^1 13^1 19^1 \\ 746 = 2^1 373^1 \\ 751 = 751^1 \\ 756 = 2^2 3^3 7^1 \\ 761 = 761^1 \\ 766 = 2^1 383^1 \\ 771 = 3^1 257^1 \\ 776 = 2^3 97^1 \\ 781 = 11^1 71^1 \\ 786 = 2^1 3^1 131^1 \\ 791 = 7^1 113^1 \\ 796 = 2^2 199^1 \end{array}$	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	$703 = 19^{1} 37^{1}$ $708 = 2^{2} 3^{1} 59^{1}$ $713 = 23^{1} 31^{1}$ $718 = 2^{1} 359^{1}$ $723 = 3^{1} 241^{1}$ $728 = 2^{3} 7^{1} 13^{1}$ $738 = 2^{1} 3^{2} 41^{1}$ $743 = 743^{1}$ $748 = 2^{2} 11^{1} 17^{1}$ $753 = 3^{1} 251^{1}$ $758 = 2^{1} 379^{1}$ $763 = 7^{1} 109^{1}$ $768 = 2^{8} 3^{1}$ $773 = 773^{1}$ $778 = 2^{1} 389^{1}$ $783 = 3^{3} 29^{1}$ $788 = 2^{2} 197^{1}$ $793 = 13^{1} 61^{1}$ $798 = 2^{1} 3^{1} 7^{1} 19^{1}$	$704 = 2^{6} 11^{1}$ $709 = 709^{1}$ $714 = 2^{1} 3^{1} 7^{1} 17^{1}$ $719 = 719^{1}$ $724 = 2^{2} 181^{1}$ $729 = 3^{6}$ $734 = 2^{1} 367^{1}$ $739 = 739^{1}$ $744 = 2^{3} 3^{1} 31^{1}$ $749 = 7^{1} 107^{1}$ $754 = 2^{1} 13^{1} 29^{1}$ $759 = 3^{1} 11^{1} 23^{1}$ $764 = 2^{2} 191^{1}$ $769 = 769^{1}$ $774 = 2^{1} 3^{2} 43^{1}$ $779 = 19^{1} 41^{1}$ $784 = 2^{4}7^{2}$ $789 = 3^{1} 263^{1}$ $794 = 2^{1} 397^{1}$ $799 = 17^{1} 47^{1}$	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$

 $601 = 601^1$ $602 = 2^17^143^1$ $603 = 3^267^1$ $604 = 2^2151^1$ $605 = 5^111^2$

$801 = 3^{2} 89^{1}$ $806 = 2^{1} 13^{1} 31^{1}$ $811 = 811^{1}$ $816 = 2^{4}3^{1} 17^{1}$ $821 = 821^{1}$ $826 = 2^{1}7^{1}59^{1}$ $831 = 3^{1}277^{1}$ $836 = 2^{2} 11^{1} 19^{1}$ $841 = 29^{2}$ $846 = 2^{1}3^{2} 47^{1}$ $851 = 23^{1}37^{1}$ $856 = 2^{3} 107^{1}$ $861 = 3^{1}7^{1} 41^{1}$ $866 = 2^{1} 433^{1}$ $871 = 13^{1} 67^{1}$ $876 = 2^{2} 3^{1} 73^{1}$ $881 = 881^{1}$ $886 = 2^{1} 443^{1}$ $891 = 3^{4} 11^{1}$ $896 = 2^{7}7^{1}$	$802 = 2^{1} 401^{1}$ $807 = 3^{1} 269^{1}$ $812 = 2^{2} 7^{1} 29^{1}$ $817 = 19^{1} 43^{1}$ $822 = 2^{1} 3^{1} 137^{1}$ $827 = 827^{1}$ $832 = 2^{6} 13^{1}$ $837 = 3^{3} 31^{1}$ $842 = 2^{1} 421^{1}$ $847 = 7^{1} 11^{2}$ $852 = 2^{2} 3^{1} 71^{1}$ $857 = 857^{1}$ $862 = 2^{1} 431^{1}$ $867 = 3^{1} 17^{2}$ $872 = 2^{3} 109^{1}$ $877 = 877^{1}$ $882 = 2^{1} 3^{2} 7^{2}$ $887 = 887^{1}$ $892 = 2^{2} 223^{1}$ $897 = 3^{1} 13^{1} 23^{1}$	$\begin{array}{l} 803 &= 11^1 73^1 \\ 808 &= 2^3 101^1 \\ 813 &= 3^1 271^1 \\ 818 &= 2^1 409^1 \\ 823 &= 823^1 \\ 828 &= 2^2 3^2 23^1 \\ 833 &= 7^2 17^1 \\ 838 &= 2^1 419^1 \\ 843 &= 3^1 281^1 \\ 843 &= 2^4 53^1 \\ 853 &= 853^1 \\ 858 &= 2^1 3^1 11^1 13^1 \\ 863 &= 863^1 \\ 868 &= 2^2 7^1 31^1 \\ 873 &= 3^2 97^1 \\ 878 &= 2^1 439^1 \\ 883 &= 883^1 \\ 888 &= 2^3 3^1 37^1 \\ 893 &= 19^1 47^1 \\ 898 &= 2^1 449^1 \end{array}$	$804 = 2^{2} 3^{1} 67^{1}$ $809 = 809^{1}$ $814 = 2^{1} 11^{1} 37^{1}$ $819 = 3^{2} 7^{1} 13^{1}$ $824 = 2^{3} 103^{1}$ $829 = 829^{1}$ $834 = 2^{1} 3^{1} 139^{1}$ $839 = 839^{1}$ $844 = 2^{2} 211^{1}$ $849 = 3^{1} 283^{1}$ $854 = 2^{1} 7^{1} 61^{1}$ $859 = 859^{1}$ $864 = 2^{5} 3^{3}$ $869 = 11^{1} 79^{1}$ $874 = 2^{1} 19^{1} 23^{1}$ $879 = 3^{1} 293^{1}$ $884 = 2^{2} 13^{1} 17^{1}$ $899 = 7^{1} 127^{1}$ $899 = 29^{1} 31^{1}$	$\begin{array}{l} 805 &= 5^1 7^1 23^1 \\ 810 &= 2^1 3^4 5^1 \\ 815 &= 5^1 163^1 \\ 820 &= 2^2 5^1 41^1 \\ 825 &= 3^1 5^2 11^1 \\ 830 &= 2^1 5^1 83^1 \\ 835 &= 5^1 167^1 \\ 840 &= 2^3 3^1 5^1 7^1 \\ 845 &= 5^1 13^2 \\ 850 &= 2^1 5^2 17^1 \\ 855 &= 3^2 5^1 19^1 \\ 860 &= 2^2 5^1 43^1 \\ 865 &= 5^1 173^1 \\ 870 &= 2^1 3^1 5^1 29^1 \\ 870 &= 2^4 5^1 11^1 \\ 885 &= 3^1 5^1 59^1 \\ 890 &= 2^1 5^1 89^1 \\ 895 &= 5^1 179^1 \\ 900 &= 2^2 3^2 5^2 \end{array}$
$\begin{array}{l} 901 \ = \ 17^1 \ 53^1 \\ 906 \ = \ 2^1 \ 3^1 \ 151^1 \\ 911 \ = \ 911^1 \\ 916 \ = \ 2^2 \ 229^1 \\ 921 \ = \ 3^1 \ 307^1 \\ 926 \ = \ 2^1 \ 463^1 \\ 931 \ = \ 7^2 \ 19^1 \\ 936 \ = \ 2^3 \ 3^2 \ 13^1 \\ 941 \ = \ 941^1 \\ 946 \ = \ 2^1 \ 11^1 \ 43^1 \\ 951 \ = \ 3^1 \ 317^1 \\ 956 \ = \ 2^2 \ 239^1 \\ 961 \ = \ 31^2 \\ 966 \ = \ 2^1 \ 3^1 \ 7^1 \ 23^1 \\ 971 \ = \ 971^1 \\ 976 \ = \ 2^4 \ 61^1 \\ 981 \ = \ 3^2 \ 109^1 \\ 986 \ = \ 2^1 \ 17^1 \ 29^1 \\ 991 \ = \ 991^1 \\ 996 \ = \ 2^2 \ 3^1 \ 83^1 \end{array}$	$902 = 2^{1} 11^{1} 41^{1}$ $907 = 907^{1}$ $912 = 2^{4} 3^{1} 19^{1}$ $917 = 7^{1} 131^{1}$ $922 = 2^{1} 461^{1}$ $927 = 3^{2} 103^{1}$ $932 = 2^{2} 233^{1}$ $937 = 937^{1}$ $942 = 2^{1} 3^{1} 157^{1}$ $947 = 947^{1}$ $952 = 2^{3} 7^{1} 17^{1}$ $957 = 3^{1} 11^{1} 29^{1}$ $967 = 967^{1}$ $972 = 2^{2} 3^{5}$ $977 = 977^{1}$ $982 = 2^{1} 491^{1}$ $987 = 3^{1} 7^{1} 47^{1}$ $997 = 997^{1}$	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	$904 = 2^{3} 113^{1}$ $909 = 3^{2} 101^{1}$ $914 = 2^{1} 457^{1}$ $919 = 919^{1}$ $924 = 2^{2} 3^{1} 7^{1} 11^{1}$ $929 = 929^{1}$ $934 = 2^{1} 467^{1}$ $939 = 3^{1} 313^{1}$ $944 = 2^{4} 59^{1}$ $949 = 13^{1} 73^{1}$ $954 = 2^{1} 3^{2} 53^{1}$ $959 = 7^{1} 137^{1}$ $964 = 2^{2} 241^{1}$ $969 = 3^{1} 17^{1} 19^{1}$ $974 = 2^{1} 487^{1}$ $979 = 11^{1} 89^{1}$ $984 = 2^{3} 3^{1} 41^{1}$ $989 = 23^{1} 43^{1}$ $994 = 2^{1} 7^{1} 71^{1}$ $999 = 3^{3} 37^{1}$	$\begin{array}{l} 905 \ = \ 5^1 \ 181^1 \\ 910 \ = \ 2^1 \ 5^1 \ 7^1 \ 13^1 \\ 915 \ = \ 3^1 \ 5^1 \ 61^1 \\ 920 \ = \ 2^3 \ 5^1 \ 23^1 \\ 925 \ = \ 5^2 \ 37^1 \\ 930 \ = \ 2^1 \ 3^1 \ 5^1 \ 31^1 \\ 935 \ = \ 5^1 \ 11^1 \ 17^1 \\ 940 \ = \ 2^2 \ 5^1 \ 47^1 \\ 945 \ = \ 3^3 \ 5^1 \ 7^1 \\ 945 \ = \ 3^3 \ 5^1 \ 7^1 \\ 950 \ = \ 2^1 \ 5^2 \ 19^1 \\ 960 \ = \ 2^6 \ 3^1 \ 5^1 \\ 965 \ = \ 5^1 \ 193^1 \\ 970 \ = \ 2^1 \ 5^1 \ 97^1 \\ 975 \ = \ 3^1 \ 5^2 \ 13^1 \\ 980 \ = \ 2^2 \ 5^1 \ 7^2 \\ 985 \ = \ 5^1 \ 197^1 \\ 980 \ = \ 2^1 \ 3^2 \ 5^1 \ 11^1 \\ 990 \ = \ 2^1 \ 3^2 \ 5^1 \ 11^1 \\ 995 \ = \ 5^1 \ 199^1 \\ 1000 \ = \ 2^3 \ 5^3 \end{array}$