# RECREATION CORNER SOLUTION POPULATION EXPLOSION 

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The problem began with 28 people. Starting with the 28 th and working backward taking every third person, it was found that the final two places were the 18 th and the 8 th. Then for 29 , when one takes one step to 26 , one is back to the case of 28 , so that the answers are 16 and 6 . Going to 30 , the answers regress back to 14 and 4 . This continues until one arrives at 31 with answers 12 and 2. At the next step 2 is replaced by a larger number at the other end of the scale. Starting with 32, one obtains 10 and 31. Again one can continue to 36 with solutions 2 and 23. The next step gives 37 with solutions 36 and 21 . The mode of procedure should be evident. The steps are summarized in the following table.

| N | $\mathrm{P}_{1}$ | $\mathrm{P}_{2}$ | N | $\mathrm{P}_{1}$ | $\mathrm{P}_{2}$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 28 | 18 | 8 | 618 | 616 | 364 |
| 32 | 10 | 31 | 800 | 252 | 799 |
| 37 | 36 | 21 | 926 | 925 | 547 |
| 48 | 14 | 46 | 1200 | 377 | 1198 |
| 55 | 54 | 32 | 1389 | 1387 | 820 |
| 71 | 22 | 70 | 1799 | 567 | 1798 |
| 82 | 81 | 48 | 2083 | 2081 | 1230 |
| 106 | 33 | 105 | 2698 | 852 | 2697 |
| 123 | 121 | 71 | 3124 | 3122 | 1845 |
| 159 | 49 | 157 | 4047 | 1276 | 4045 |
| 184 | 182 | 107 | 4685 | 4684 | 2769 |
| 238 | 74 | 236 | 6070 | 1914 | 6068 |
| 275 | 274 | 162 | 7027 | 7026 | 4154 |
| 356 | 112 | 355 | 9104 | 2872 | 9103 |
| 412 | 411 | 243 | 10540 | 10539 | 6231 |
| 534 | 167 | 532 | 13656 | 4307 | 13654 |


| N | $\mathrm{P}_{1}$ | $\mathrm{P}_{2}$ |
| :---: | :---: | :---: |
| 15810 | 15808 | 9346 |
| 20483 | 6462 | 20482 |
| 23714 | 23713 | 14020 |
| 30724 | 9693 | 30723 |
| 35571 | 35569 | 21029 |
| 46086 | 14539 | 46084 |
| 53356 | 53354 | 31544 |
| 69128 | 21810 | 69127 |
| 80033 | 80032 | 47317 |
| 103692 | 32714 | 103690 |
| 120049 | 120048 | 70976 |
| 155537 | 49072 | 15536 |
| 180073 | 180072 | 106464 |
| 233305 | 73608 | 233304 |
| 270109 | 270108 | 159696 |
| 349957 | 110412 | 349956 |
| 405163 | 405162 | 239544 |
| 524935 | 165618 | 524934 |
| 607744 | 607743 | 359316 |
| 787402 | 248427 | 787401 |
| 911616 | 911614 | 538973 |
| 1,000,000 | 734846 | 362205 |

Please make the following corrections to the article "The Bracket Function, Q-Binomial Coefficients, and Some New Stirling Number Formulas, " by H. W. Gould, appearing in the December, 1967, Vol. 5, No. 5, issue of the Fibonacci Quarterly, pp. 401-423:
p. 410: In the line after (3), replace "left" by "led. "
p. 411: In relation (33), replace $\binom{n}{s}$ by $\left[\begin{array}{l}n \\ s\end{array}\right]$.
p. 415: In relation (50), after sigma, replace $G(x, j, q)$ by $F(x, j, q)$.

