|  | A | B | C | D | E | F |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :--- |
| 1 |  |  |  |  |  |  | Comments/ Instructions |
| 2 |  | sample size | 5 |  |  |  | The numbers in these regions are inputed by the user. |
| 3 | Problem 1 |  |  |  |  |  | The number in these regions is calculated by the spreadsheet |
| 4 | total | 6 | 7 |  | number |  |  |
| 5 |  | red | green |  | of samples |  |  |
| 6 | want | 3 | 2 |  | 420 |  |  |
| 7 |  |  |  |  |  |  |  |


|  | A | B | C | D | E |
| :---: | :--- | :---: | :---: | :---: | :---: |
| 1 |  |  |  |  |  |
| 2 |  | sample size | 5 |  |  |
| 3 | Problem 1 |  |  |  | number |
| 4 | total | 6 | 7 |  | of samples |
| 5 |  | red | green |  |  |
| 6 | want | 3 | =C2-B6 |  | =COMBIN(B4,B6)*COMBIN(C4,C6) |


|  | A | B | C | D | E | F | G | H | I | J |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 |  | sample | 15 |  |  |  |  |  | Comments/ Instructions |  |
| 2 |  |  |  |  |  |  |  |  | The numbers in these regions are inputed by the |  |
| 3 | Problem 2 |  |  |  |  |  |  |  | user. |  |
| 4 | total | 17 | 10 |  |  | number |  |  | The number in these regions is calculated by the spreadsheet |  |
| 5 |  | red | green |  |  | of samples |  |  |  |  |
| 6 | want | 7 | 8 |  |  | 875,160 |  |  | Note: I typed the formula in cell C6 and pressed |  |
| 7 |  | 8 | 7 |  |  | 2,917,200 |  |  | enter. Then I clicked on the cell C6. Notice the small black square in the bottom right of the cell. |  |
| 8 |  | 9 | 6 |  |  | 5,105,100 |  |  | Hold the left mouse button down on that box and |  |
| 9 |  | 10 | 5 |  |  | 4,900,896 |  |  | drag downward. This copies the cell down. This |  |
| 10 |  | 11 | 4 |  |  | 2,598,960 |  |  | process will also change any formula references |  |
| 11 |  | 12 | 3 |  |  | 742,560 |  |  | similar action with the formula in cell F6 |  |
| 12 |  | 13 | 2 |  |  | 107,100 |  |  |  |  |
| 13 |  | 14 | 1 |  |  | 6,800 |  |  | The above action could have also been done by |  |
| 14 |  | 15 | 0 |  |  | 136 |  |  | using the copy and past function. |  |
| 15 |  |  |  |  |  |  |  |  |  |  |
| 16 |  |  |  |  | total | 17,253,912 |  |  |  |  |
| 17 |  |  |  |  |  |  |  |  |  |  |


|  | A | B | C | D | E | F |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 |  | sample | 15 |  |  |  |
| 2 |  |  |  |  |  |  |
| 3 | Problem 2 |  |  |  |  |  |
| 4 | total | 17 | 10 |  |  | number |
| 5 |  | red | green |  |  | of samples |
| 6 | want | 7 | =\$C\$1-B6 |  |  | =COMBIN(\$B\$4,B6)*COMBIN(\$C\$4,C6) |
| 7 |  | 8 | =\$C\$1-B7 |  |  | =COMBIN(\$B\$4,B7)*COMBIN(\$C\$4,C7) |
| 8 |  | 9 | =\$C\$1-B8 |  |  | =COMBIN(\$B\$4,B8)*COMBIN(\$C\$4,C8) |
| 9 |  | 10 | =\$C\$1-B9 |  |  | =COMBIN(\$B\$4,B9)*COMBIN(\$C\$4,C9) |
| 10 |  | 11 | =\$C\$1-B10 |  |  | =COMBIN(\$B\$4,B10)*COMBIN(\$C\$4,C10) |
| 11 |  | 12 | =\$C\$1-B11 |  |  | =COMBIN(\$B\$4,B11)*COMBIN(\$C\$4,C11) |
| 12 |  | 13 | =\$C\$1-B12 |  |  | =COMBIN(\$B\$4,B12)*COMBIN(\$C\$4,C12) |
| 13 |  | 14 | =\$C\$1-B13 |  |  | =COMBIN(\$B\$4,B13)*COMBIN(\$C\$4,C13) |
| 14 |  | 15 | =\$C\$1-B14 |  |  | =COMBIN(\$B\$4,B14)*COMBIN(\$C\$4,C14) |
| 15 |  |  |  |  |  |  |
| 16 |  |  |  |  | total | SUM(F6:F14) |


|  | A | B | C | D | E | F | G |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 |  | sample | 9 |  |  |  |  |
| 2 |  |  |  |  |  |  |  |
| 3 | Problem 3 |  |  |  |  |  | number |
| 4 | total | 12 | 10 | 11 |  |  | of samples |
| 5 |  | red | green | purple |  |  | $3,267,000$ |
| 6 | want | 4 | 3 | 2 |  |  | $1,045,440$ |
| 7 |  | 5 | 3 | 1 |  |  | 110,880 |
| 8 |  | 6 | 3 | 0 |  |  | $1,143,450$ |
| 9 |  | 4 | 4 | 1 |  |  | 166,320 |
| 10 |  | 5 | 4 | 0 |  |  | 124,740 |
| 11 |  | 4 | 5 | 0 |  |  |  |
| 12 |  |  |  |  |  |  | $\mathbf{5 , 8 5 7 , 8 3 0}$ |
| 13 |  |  |  |  |  | total |  |
| 14 |  |  |  |  |  |  |  |


|  | A | B | C | D | E | F | G |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 |  | sample | 9 |  |  |  |  |
| 2 |  |  |  |  |  |  |  |
| 3 | Problem 3 |  |  |  |  |  |  |
| 4 | total | 12 | 10 | 11 |  |  | number |
| 5 |  | red | green | purple |  |  | of samples |
| 6 | want | 4 | 3 | =\$C\$1-B6-C6 |  |  | =COMBIN(\$B\$4,B6)*COMBIN(\$C\$4,C6)*COMBIN(\$D\$4,D6) |
| 7 |  | 5 | 3 | =\$C\$1-B7-C7 |  |  | =COMBIN(\$B\$4,B7)*COMBIN(\$C\$4,C7)*COMBIN(\$D\$4,D7) |
| 8 |  | 6 | 3 | =\$C\$1-B8-C8 |  |  | =COMBIN(\$B\$4,B8)*COMBIN(\$C\$4,C8)*COMBIN(\$D\$4,D8) |
| 9 |  | 4 | 4 | =\$C\$1-B9-C9 |  |  | =COMBIN(\$B\$4,B9)*COMBIN(\$C\$4,C9)*COMBIN(\$D\$4,D9) |
| 10 |  | 5 | 4 | =\$C\$1-B10-C10 |  |  | =COMBIN(\$B\$4,B10)*COMBIN(\$C\$4,C10)*COMBIN(\$D\$4,D10) |
| 11 |  | 4 | 5 | =\$C\$1-B11-C11 |  |  | =COMBIN(\$B\$4,B11)*COMBIN(\$C\$4,C11)*COMBIN(\$D\$4,D11) |
| 12 |  |  |  |  |  |  |  |
| 13 |  |  |  |  |  | otal | =SUM(G6:G11) |

