## Birthday Problem Data

| Number of <br> People <br> $\mathbf{N}$ | Probability of <br> No Common <br> Birthdays | Probability of at least <br> One Common <br> Birthday |
| :---: | :---: | :---: |
| $5=\frac{365 \mathrm{P}_{\mathrm{N}}}{365^{\mathrm{N}}}$ | $\mathrm{P}=1-\frac{365 \mathrm{P}_{\mathrm{N}}}{365^{\mathrm{N}}}$ |  |
| 5 | $97.3 \%$ | $2.7 \%$ |
| 10 | $88.3 \%$ | $11.7 \%$ |
| 15 | $74.7 \%$ | $25.3 \%$ |
| 20 | $58.9 \%$ | $41.1 \%$ |
| 25 | $43.1 \%$ | $56.9 \%$ |
| 30 | $29.4 \%$ | $70.6 \%$ |
| 40 | $10.9 \%$ | $89.1 \%$ |
| 50 | $3.0 \%$ | $97.0 \%$ |
| 70 | $0.08 \%$ | $99.92 \%$ |
| 100 | $0.00003 \%$ | $99.99997 \%$ |

