# 成功率10%の人は何回やれば成功するか？

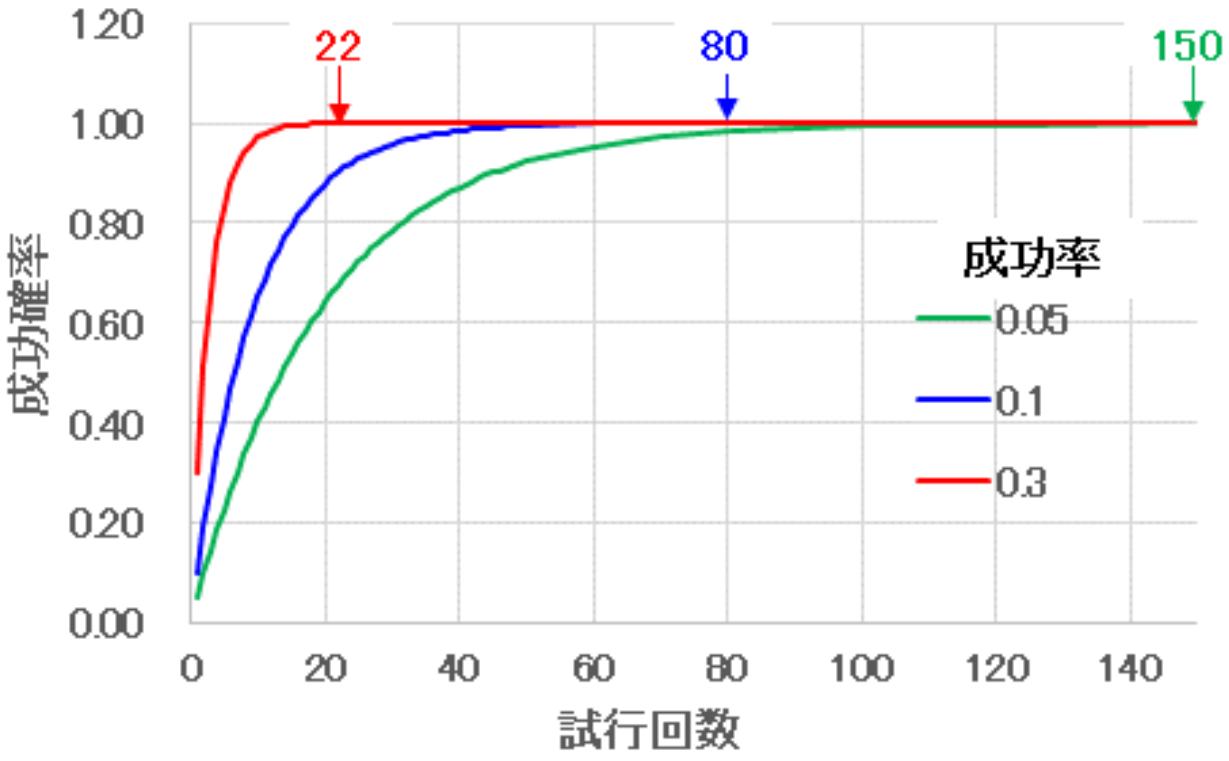
求め方

「n回中、1回成功する確率」=「1－(n回失敗する確率)」

n回失敗する確率＝(1－成功率)^n　なので

「n回中、1回成功する確率」＝1－{(1－成功率)^n}

成功率10%の人は、1－{(1－0.1)^n}で算出




| | 成功率 | | |
|---|---|---|---|
| 試行回数 | 0.05 | 0.1 | 0.3 |
| 1 | 0.050 | 0.100 | 0.300 |
| 2 | 0.098 | 0.190 | 0.510 |
| 3 | 0.143 | 0.271 | 0.657 |
| 4 | 0.185 | 0.344 | 0.760 |
| 5 | 0.226 | 0.410 | 0.832 |
| 6 | 0.265 | 0.469 | 0.882 |
| 7 | 0.302 | 0.522 | 0.918 |
| 8 | 0.337 | 0.570 | 0.942 |
| 9 | 0.370 | 0.613 | 0.960 |
| 10 | 0.401 | 0.651 | 0.972 |
| 11 | 0.431 | 0.686 | 0.980 |
| 12 | 0.460 | 0.718 | 0.986 |
| 13 | 0.487 | 0.746 | 0.990 |
| 14 | 0.512 | 0.771 | 0.993 |
| 15 | 0.537 | 0.794 | 0.995 |
| 16 | 0.560 | 0.815 | 0.997 |
| 17 | 0.582 | 0.833 | 0.998 |
| 18 | 0.603 | 0.850 | 0.998 |
| 19 | 0.623 | 0.865 | 0.999 |
| 20 | 0.642 | 0.878 | 0.999 |
| 21 | 0.659 | 0.891 | 0.999 |
| 22 | 0.676 | 0.902 | 1.000 |
| 23 | 0.693 | 0.911 | 1.000 |
| 24 | 0.708 | 0.920 | 1.000 |
| 25 | 0.723 | 0.928 | 1.000 |
| 26 | 0.736 | 0.935 | 1.000 |
| 27 | 0.750 | 0.942 | 1.000 |
| 28 | 0.762 | 0.948 | 1.000 |
| 29 | 0.774 | 0.953 | 1.000 |
| 30 | 0.785 | 0.958 | 1.000 |
| 31 | 0.796 | 0.962 | 1.000 |
| 32 | 0.806 | 0.966 | 1.000 |
| 33 | 0.816 | 0.969 | 1.000 |
| 34 | 0.825 | 0.972 | 1.000 |
| 35 | 0.834 | 0.975 | 1.000 |
| 36 | 0.842 | 0.977 | 1.000 |
| 37 | 0.850 | 0.980 | 1.000 |
| 38 | 0.858 | 0.982 | 1.000 |
| 39 | 0.865 | 0.984 | 1.000 |
| 40 | 0.871 | 0.985 | 1.000 |
| 41 | 0.878 | 0.987 | 1.000 |
| 42 | 0.884 | 0.988 | 1.000 |
| 43 | 0.890 | 0.989 | 1.000 |
| 44 | 0.895 | 0.990 | 1.000 |
| 45 | 0.901 | 0.991 | 1.000 |
| 46 | 0.906 | 0.992 | 1.000 |
| 47 | 0.910 | 0.993 | 1.000 |
| 48 | 0.915 | 0.994 | 1.000 |
| 49 | 0.919 | 0.994 | 1.000 |
| 50 | 0.923 | 0.995 | 1.000 |
| 60 | 0.954 | 0.998 | 1.000 |
| 70 | 0.972 | 0.999 | 1.000 |
| 80 | 0.983 | 1.000 | 1.000 |
| 90 | 0.990 | 1.000 | 1.000 |
| 100 | 0.994 | 1.000 | 1.000 |
| 120 | 0.998 | 1.000 | 1.000 |
| 150 | 1.000 | 1.000 | 1.000 |