Probability that a sample of r people will all have different birthdays. 10 figure accuracy. Using the formula

$$\mathbf{P}(\text{all different birthdays}) = \frac{365!}{365^r(365-r)!}$$

r	probability	r	probability
1	1.0	26	0.4017591799
2	0.9972602740	27	0.3731407177
3	0.9917958341	28	0.3455385277
4	0.9836440875	29	0.3190314625
5	0.9728644263	30	0.2936837573
6	0.9595375164	31	0.2695453663
7	0.9437642969	32	0.2466524721
8	0.9256647076	33	0.2250281458
9	0.9053761661	34	0.2046831354
10	0.8830518223	35	0.1856167611
11	0.8588586217	36	0.1678178936
12	0.8329752112	37	0.1512659918
13	0.8055897248	38	0.1359321789
14	0.7768974880	39	0.1217803356
15	0.7470986802	40	0.1087681902
16	0.7163959947	41	0.09684838852
17	0.6849923347	42	0.08596952844
18	0.6530885821	43	0.07607714434
19	0.6208814740	44	0.06711463145
20	0.5885616164	45	0.05902410053
21	0.5563116648	46	0.05174715663
22	0.5243046923	47	0.04522559717
23	0.4927027657	48	0.03940202712
24	0.4616557421	49	0.03422039068
25	0.4313002960	50	0.02962642042