



Step	Guessed	Keys \times Data = Memo	Time \cdot Unit	Stored Texts
0	—	$2^0 \times 2^{56} = 2^{56}$	$2^{56} \cdot 2^{-5.1}$	$Z_{21}[0, 1, 2, 3, 4, 5, 6]; X_{21}[8, 9, 10, 12, 13, 14, 15]; Z_{20}[3, 6]; X_{20}[9]STK_{19}[3]$
1	$STK_{21}[1, 4, 6]$	$2^{12} \times 2^{56} = 2^{68}$	$2^{68} \cdot 2^{-6.1}$	$Z_{21}[0, 2, 3, 5]; X_{21}[9, 12, 13, 14, 15]; Z_{20}[0, 2, 3, 5, 6, 7]; X_{20}[9, 10, 14]STK_{19}[3]$
2	$STK_{21}[2]$	$2^{16} \times 2^{56} = 2^{72}$	$2^{72} \cdot 2^{-7.5}$	$Z_{21}[0, 3, 5]; X_{21}[9, 12, 13, 15]; Z_{20}[0, 2, 3, 5, 6, 7]; X_{20}[9, 10, 14, 15]STK_{19}[3]$
3	$STK_{20}[7]$	$2^{20} \times 2^{56} = 2^{76}$	$2^{76} \cdot 2^{-7.5}$	$Z_{21}[0, 3, 5]; X_{21}[9, 12, 13, 15]; Z_{20}[0, 2, 3, 5, 6]; X_{20}[7, 9, 10, 14, 15]; X_{19}[3]$
4	$STK_{20}[2]$	$2^{24} \times 2^{56} = 2^{80}$	$2^{80} \cdot 2^{-6.9}$	$Z_{21}[0, 3, 5]; X_{21}[9, 12, 13, 15]; Z_{20}[0, 3, 5, 6]; X_{20}[7, 9, 10, 14, 15]; X_{18}[12]$
5	$STK_{21}[3]$	$2^{28} \times 2^{56} = 2^{84}$	$2^{84} \cdot 2^{-7.5}$	$Z_{21}[0, 5]; X_{21}[9, 12, 13]; Z_{20}[0, 3, 5, 6]; X_{20}[7, 9, 10, 12, 14, 15]; X_{18}[12]$
6	$STK_{21}[5]$	$2^{32} \times 2^{56} = 2^{88}$	$2^{88} \cdot 2^{-7.5}$	$Z_{21}[0]; X_{21}[12]; Z_{20}[0, 1, 3, 4, 5, 6]; X_{20}[9, 10, 12, 14, 15]; Z_{19}[6]; X_{18}[12]$
7	$STK_{21}[0]$	$2^{36} \times 2^{56} = 2^{92}$	$2^{92} \cdot 2^{-7.5}$	$Z_{20}[0, 1, 3, 4, 5, 6]; X_{20}[9, 10, 12, 13, 14, 15]; Z_{19}[6]; X_{18}[12]$
8	$STK_{20}[5]$	$2^{40} \times 2^{52} = 2^{92}$	$2^{96} \cdot 2^{-8.5}$	$Z_{20}[0, 1, 3, 4, 6]; X_{20}[10, 12, 13, 14, 15]; Z_{19}[4, 6]; X_{18}[12]$
9	$STK_{20}[3]$	$2^{44} \times 2^{48} = 2^{92}$	$2^{96} \cdot 2^{-7.5}$	$Z_{20}[0, 1, 4, 6]; X_{20}[10, 12, 13, 14]; Z_{19}[4, 6]; X_{19}[12]; X_{18}[12]$
10	$STK_{20}[1]$	$2^{48} \times 2^{44} = 2^{92}$	$2^{96} \cdot 2^{-7.5}$	$Z_{20}[0, 4, 6]; X_{20}[10, 12, 14]; Z_{19}[4, 6]; X_{19}[12, 14]; X_{18}[12]$
11	$STK_{20}[0]$	$2^{52} \times 2^{44} = 2^{96}$	$2^{96} \cdot 2^{-7.5}$	$Z_{20}[4, 6]; X_{20}[10, 12, 14]; Z_{19}[4, 6]; X_{19}[12, 13, 14]; X_{18}[12]$
12	$STK_{20}[4]$	$2^{56} \times 2^{40} = 2^{96}$	$2^{100} \cdot 2^{-7.5}$	$Z_{20}[6]; X_{20}[10, 14]; Z_{19}[4, 6]; X_{19}[10, 12, 13, 14]; X_{18}[12]$
13	$STK_{19}[6]$	$2^{60} \times 2^{36} = 2^{96}$	$2^{100} \cdot 2^{-8.5}$	$Z_{20}[6]; X_{20}[10, 14]; Z_{19}[4]; X_{19}[12, 13, 14]; Z_{18}[5]; X_{18}[12]$
14	$STK_{20}[6]$	$2^{64} \times 2^{36} = 2^{100}$	$2^{100} \cdot 2^{-7.5}$	$Z_{19}[2, 4, 5]; X_{19}[8, 12, 13, 14]; Z_{18}[5]; X_{18}[12]$
15	$STK_{19}[5]$	$2^{68} \times 2^{32} = 2^{100}$	$2^{104} \cdot 2^{-7.5}$	$Z_{19}[2, 4]; X_{19}[8, 12, 14]; Z_{18}[5]; X_{18}[11, 12]$
16	$STK_{19}[2]$	$2^{72} \times 2^{28} = 2^{100}$	$2^{104} \cdot 2^{-7.5}$	$Z_{19}[4]; X_{19}[8, 12]; Z_{18}[5]; X_{18}[11, 12, 15]$
17	$STK_{19}[4]$	$2^{76} \times 2^{24} = 2^{100}$	$2^{104} \cdot 2^{-8.5}$	$Z_{18}[0, 5, 7]; X_{18}[11, 12, 15]$
18	$STK_{18}[7]$	$2^{80} \times 2^{16} = 2^{96}$	$2^{104} \cdot 2^{-7.5}$	$Z_{18}[0, 5]; X_{18}[12]; Z_{16}[2]$
19	$STK_{18}[0]$	$2^{84} \times 2^{12} = 2^{96}$	$2^{100} \cdot 2^{-7.5}$	$Z_{18}[5]; X_{17}[13]; Z_{16}[2]$
20	$STK_{18}[5]$	$2^{88} \times 2^{12} = 2^{100}$	$2^{100} \cdot 2^{-8.5}$	$Z_{17}[1]; X_{17}[13]; Z_{16}[2]$
21	$STK_{17}[1]$	$2^{92} \times 2^8 = 2^{100}$	$2^{104} \cdot 2^{-7.5}$	$Z_{16}[2]; X_{16}[14]$
22	$STK_{16}[2]$	$2^{96} \times 2^4 = 2^{100}$	$2^{104} \cdot 2^{-7.5}$	$X_{15}[15]$
Σ		2^{100}	$2^{99.07}$	