Bits Cheat Sheet

	2^n	Bits	Max unsigned int	Min signed int	Max signed int
2^1	2	1	1	−1	0
2^2	4	2	3	−2	1
2^3	8	3	7	−4	3
2^4	16	4	15	−8	7
2^5	32	5	31	−16	15
2^6	64	6	63	−32	31
2^7	128	7	127	−64	63
2^8	256	8	255	−128	127
2^9	512	9	511	−256	255
2^{10}	1,024	10	1,023	−512	511
2^{11}	2,048	11	2,047	−1,024	1,023
2^{12}	4,096	12	4,095	−2,048	2,047
2^{13}	8,192	13	8,191	−4,096	4,095
2^{14}	16,384	14	16,383	−8,192	8,191
2^{15}	32,768	15	32,767	−16,384	16,383
2^{16}	65,536	16	65,535	−32,768	32,767
2^{17}	131,072	17	131,071	−65,536	65,535
2^{18}	262,144	18	262,143	−131,072	131,071
2^{19}	524,288	19	524,287	−262,144	262,143
2^{20}	1,048,576	20	1,048,575	−524,288	524,287
2^{21}	2,097,152	21	2,097,151	−1,048,576	1,048,575
2^{22}	4,194,304	22	4,194,303	−2,097,152	2,097,151
2^{23}	8,388,608	23	8,388,607	−4,194,304	4,194,303
2^{24}	16,777,216	24	16,777,215	−8,388,608	8,388,607
2^{25}	33,554,432	25	33,554,431	−16,777,216	16,777,215
2^{26}	67,108,864	26	67,108,863	−33,554,432	33,554,431
2^{27}	134,217,728	27	134,217,727	−67,108,864	67,108,863
2^{28}	268,435,456	28	268,435,455	−134,217,728	134,217,727
2^{29}	536,870,912	29	536,870,911	−268,435,456	268,435,455
2^{30}	1,073,741,824	30	1,073,741,823	−536,870,912	536,870,911
2^{31}	2,147,483,648	31	2,147,483,647	−1,073,741,824	1,073,741,823
2^{32}	4,294,967,296	32	4,294,967,295	−2,147,483,648	2,147,483,647