

# Binärzahlen

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- ① Du kennst sicher die Stellenwerttafel. Diese hilft zu erkennen, welche Stelle welchen Wert hat. Zum Beispiel die Zahl 2351.

T	H	Z	E	
2	3	5	1	

Dies sind die Zehnerzahlen oder Dezimalzahlen, weil immer, wenn 10 gefüllt sind die nächste höhere Stelle einen Wert dazubekommt .

- ② Beim Binärsystem gibt es nur 0 und 1. Diese zeigen auf der jeweiligen Stelle dann den Wert an.

- ③ Wie im Dezimalsystem hilft auch hier eine kleine Tabelle. Das Binärsystem baut auf der Verdopplung von Werten ab der Zahl 1 auf.

1	→	2	→	4	→	8	→	16	→	32	→	64	→	128	→	256	→	512	→	1024	→	2048	→	4096	→	8192	→	16384	→	32768	→	65536	→	131072	→	262144	→	524288	→	1048576	→	2097152	→	4194304	→	8388608	→	16777216	→	33554432	→	67108864	→	134217728	→	268435456	→	536870912	→	1073741824	→	2147483648	→	4294967296	→	8589934592	→	17179869184	→	34359738368	→	68719476736	→	137438953472	→	274877906944	→	549755813888	→	1099511627776	→	2199023255552	→	4398046511104	→	8796093022208	→	17592186044416	→	35184372088832	→	70368744177664	→	140737488355328	→	281474976710656	→	562949953421312	→	1125899906842624	→	2251799813685248	→	4503599627370496	→	9007199254740992	→	18014398509481984	→	36028797018963968	→	72057594037927936	→	144115188075855872	→	288230376151711744	→	576460752303423488	→	1152921504606846976	→	2305843009213693952	→	4611686018427387904	→	9223372036854775808	→	18446744073709551616	→	36893488147419103232	→	73786976294838206464	→	147573952589676412928	→	295147905179352825856	→	590295810358705651712	→	1180591620717411303424	→	2361183241434822606848	→	4722366482869645213696	→	9444732965739290427392	→	18889465931478580854784	→	37778931862957161709568	→	75557863725914323419136	→	151115727451828646838272	→	302231454903657293676544	→	604462909807314587353088	→	1208925819614629174706176	→	2417851639229258349412352	→	4835703278458516698824704	→	9671406556917033397649408	→	19342813113834066795298816	→	38685626227668133590597632	→	77371252455336267181195264	→	154742504910672534362390528	→	309485009821345068724781056	→	618970019642690137449562112	→	1237940039285380274899124224	→	2475880078570760549798248448	→	4951760157141521099596496896	→	9903520314283042199192993792	→	19807040628566084398385987584	→	39614081257132168796771975168	→	79228162514264337593543950336	→	158456325028528675187087900672	→	316912650057057350374175801344	→	633825300114114700748351602688	→	1267650600228229401496703205376	→	2535301200456458802993406410752	→	5070602400912917605986812821504	→	10141204801825835211973625643008	→	20282409603651670423947251286016	→	40564819207303340847894502572032	→	81129638414606681695789005144064	→	162259276829213363391578010288128	→	324518553658426726783156020576256	→	649037107316853453566312041152512	→	1298074214633706907132624082305024	→	2596148429267413814265248164610048	→	5192296858534827628530496329220096	→	10384593717069655257060992658440192	→	20769187434139310514121985316880384	→	41538374868278621028243970633760768	→	83076749736557242056487941267521536	→	166153499473114484112975882535043072	→	332306998946228968225951765070086144	→	664613997892457936451903530140172288	→	1329227995784915872903807060280344576	→	2658455991569831745807614120560689152	→	5316911983139663491615228241121378304	→	10633823966279326983230456482242756608	→	21267647932558653966460912964485513216	→	42535295865117307932921825928971026432	→	85070591730234615865843651857942052864	→	170141183460469231731687303715884105728	→	340282366920938463463374607431768211456	→	680564733841876926926749214863536422912	→	1361129467683753853853498429727072845824	→	2722258935367507707706996859454145691648	→	5444517870735015415413993718908291383296	→	10889035741470030830827987437816582766592	→	21778071482940061661655974875633165533184	→	43556142965880123323311949751266331066368	→	87112285931760246646623899502532662132736	→	174224571863520493293247799005065244265472	→	348449143727040986586495598010130488530944	→	696898287454081973172991196020260977061888	→	1393796574908163946345982392040521954123776	→	2787593149816327892691964784081043908247552	→	5575186299632655785383929568162087816495104	→	11150372599265311570767859136324175832990208	→	22300745198530623141535718272648351665980416	→	44601490397061246283071436545296703331960832	→	89202980794122492566142873090593406663921664	→	178405961588244985132285746181186813327843328	→	356811923176489970264571492362373626655686656	→	71362384635297994052914298472474725331137312	→	142724769270595988105828596944949450662274624	→	285449538541191976211657193889898901324549248	→	570899077082383952423314387779797802649098496	→	1141798154164767904846628775559595605298196992	→	2283596308329535809693257551119191210596393984	→	4567192616659071619386515102238382421192787968	→	9134385233318143238773030204476764842385575936	→	18268770466636286477546060408953529684771151872	→	36537540933272572955092120817907059369542303744	→	73075081866545145910184241635814118739084607488	→	146150163733090291820368483271628237478169149776	→	292300327466180583640736966543256474956338399552	→	584600654932361167281473933086512949912676799104	→	1169201309864722334562947866173025899825353598208	→	2338402619729444669125895732346051799650707196416	→	4676805239458889338251791464692103599301414392832	→	9353610478917778676503582929384207198602828785664	→	18707220957835557353007165858768414397205657571328	→	37414441915671114706014331717536828794411315142656	→	74828883831342229412028663435073657588822630285312	→	149657767662684458824057326870147315177645265710624	→	299315535325368917648114653740294630355290531421488	→	598631070650737835296229307480589260710581062842976	→	119726214130147567059245861496117852142116212568576	→	239452428260295134118491722992235704284232425137152	→	478904856520590268236983445984471408568464850274304	→	957809713041180536473966891968942817136929700548608	→	1915619426082361072947933783937885634273859401097216	→	3831238852164722145895867567875771268547718802194432	→	7662477704329444291791735135751542537095437604388864	→	15324955408658888583583470271503085074190875208777728	→	30649910817317777167166940543006170148381750417555456	→	61299821634635554334333881086012340296763500835111112	→	12259964326927110866866776217202468059352700167022224	→	24519928653854221733733552434404936118705400334044448	→	49039857307708443467467104868809872237410800668088896	→	98079714615416886934934209737619744474821601336177792	→	19615942923083377386986841947523948894963202672235584	→	39231885846166754773973683895047897789926405344471168	→	78463771692333509547947367790095795579852810688942336	→	156927543384667019095894735580191591159705621377884672	→	313855086769334038191789471160383182319411242755769344	→	627710173538668076383578942320766364638822485511538888	→	1255420347077336152767157884641532729277644971023077776	→	2510840694154672305534315769283065458555289942046155552	→	5021681388309344611068631538566130917110598844092311104	→	10043362776618689222137263077132261834221197688184622208	→	20086725553237378444274526154264523668442395376369244416	→	40173451106474756888549052308529047336884790752738488832	→	80346902212949513777098104617058094673769581505476977664	→	160693804425899027554196209234116189347539163010953955328	→	321387608851798055108392418468232378695078326021907910656	→	642775217703596110216784836936464753390156652043815821312	→	1285550435407192220433569673872929506780313304087631642624	→	2571100870814384440867139347745859013560626608175263285248	→	5142201741628768881734278695491718027121253216350526570496	→	10284403483257537763468557390983436054242506432701053140992	→	20568806966515075526937114781966872108485012865402106281984	→	41137613933030151053874229563933744216970025730804212533968	→	82275227866060302107748459127867488433940051461608425067936	→	164550455732120604215496918255734976867880102923216850135872	→	329100911464241208430993836511469953735760205846433700271744	→	658201822928482416861987673022939907471520411692867400543488	→	1316403645856964833723975346045879814943040823385734801087968	→	2632807291713929667447950692091759629886081647771469603175936	→	5265614583427859334895901384183519259772163295542939206351872	→	10531229166857718669791802768367038519544326591085878412703744	→	21062458333715437339583605536734077039088653182171756825407488	→	42124916667430874679167211073468154078177306364343513650814976	→	84249833334861749358334422146936308156354612728687027316229952	→	16849966669972349871666884429387261631270922545737405463245984	→	33699933339944699743333768858774523262541845091474810926491968	→	67399866679889399486667537717549046525083690182949621852983936	→	134799733359778798973335075435098093050167383755899243059167872	→	269599466719557597946670150870196186100334767511798486118335744	→	539198933439115195893340301740392372200669535023596972236671488	→	1078397866878230391786680603480784744401339070047193944473342976	→	2156795733756460783573361206961569488802678140094387888946685952	→	431359146751292156714672241392313897760535628018877577789337184	→	862718293502584313429344482784627795521071256037755155578674368	→	1725436587005168626858688965569255591042142512075510311157348736	→	3450873174010337253717377931138511182084285024151020622314697472	→	6901746348020674507434755862277022364168570048302041244629394944	→	13803492696041349014869511724554044728337140096604082489258789888	→	27606985392082698029739023449108089456674280193208165778517579776	→	55213970784165396059478046898216178913348560386416311557035159552	→	11042794156833079211895609379643235782669712077283262311407031904	→	22085588313666158423791218759286471565339424154566524622814063808	→	44171176627332316847582437518572943130678848309133049245628127616	→	88342353254664633695164875037145886261357696618266098491256255232	→	176684706509329267390329750074291772522715393236532196982512504464	→	353369413018658534780659500148583545045430786473064383965025008928	→	706738826037317069561319000297167090090861732946128767930050017856
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