Tables of Aliquot Cycles

Click on the number of known cycles to view the corresponding lists.

Type	Amicable Numbers		Sociable Numbers of order four		Sociable Numbers of other orders		Perfect Numbers	
	Known Cycles	Last Update	Known Cycles	Last Update	Known Cycles	Last Update	Known Cycles	Last Update
Ordinary	11994387	28-Sep-2007	142	01-Oct-2007	10	13-Nov-2006	44	11-Sep-2006
Unitary	4911908	28-Sep-2007	191	20-Nov-2006	24	14-Jun-2005	5	14-Dec-1997
Infinitary	11538100	28-Sep-2007	5034	28-Sep-2007	129	20-Nov-2006	190	28-Sep-2007
Exponential (note 2)	3089296	28-Sep-2007	371	20-Nov-2006	38	15-Jun-2005	12	06-Dec-1998
Augmented	1931	05-Feb-2002	2	08-May-2003	0	18-Oct-1997	note 1	11-Mar-1998
Augmented Unitary	27	05-Feb-2002	0	06-Dec-1998	0	06-Dec-1998		
Augmented Infinitary	425	10-Sep-2003	0	06-Dec-1998	0	06-Dec-1998		
Reduced	1946	15-Feb-2003	0	18-Oct-1997	1	18-Oct-1997	0	11-Mar-1998
Reduced Unitary	28	15-Feb-	0	06-Dec-	0	06-Dec-		

Note 1: All powers of 2 are augmented perfect numbers; no other augmented perfect numbers are known.

Note 2: Multiplying all members of an exponential aliquot cycle by a squarefree number prime to all the members of the cycle yields a new exponential aliquot cycle. Cycles that can be constructed from other cycles this way aren't listed (nor counted).

Some of the discoverer information in the lists might still be wrong. All kind of updates are welcome. A great thanks to David Moews for sending me a lot of discoverer information.

Exhaustive limits

This table indicates how far exhaustive searchs for the various kinds of cycles has been carried. For amicable numbers all pairs with smaller member below the limit are known. For sociable numbers all cycles with the member preceeding the largest member below the limit are known.

Type	Amicable Numbers Exhaustive below	Sociable Numbers Exhaustive below	Perfect Numbers Exhaustive below
Ordinary	10^{14}	510^{12}	10^{300}
Unitary	210^{12}	210^{11}	(210^{12})
Infinitary	510^{12}	210^{11}	(510^{12})
Exponential	(410^{11})	(410^{11})	(410^{11})
Augmented	10^{12}	210^{11}	(10^{12})
Augmented Unitary	210^{11}	210^{11}	
Augmented Infinitary	210^{11}	210^{11}	
Reduced	10^{12}	210^{11}	10^{35}

Links

- Perfect, amicable, and sociable numbers (how to have fun summing up divisors) by David Moews
- Amicable Pair, Sociable Numbers, Perfect Number, Unitary Amicable Pair, Unitary Sociable Numbers, Unitary Perfect Number, Infinitary Perfect Number, e-Perfect Number, Augmented Amicable Pair, Almost Perfect Number, Quasiamicable Pair, Quasiperfect Number by Eric W. Weisstein
- Aliquot Sequences by Wolfgang Creyaufmüller (same in German)

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