	(1516)lodash-	es/isEqual	(4028)dequal	(6446)dequal/lite	(7655)fast-deep-equal	(4202)fast-deep-equal/es6	(7102)fast-equals	(2593)nano-equal	(533)deep-equal
scalars	(315) 17/17	170 -2	(190) 17/17	(1443) 17/17	(1622) 17/17	(199) 17/17	(1668) 17/17	(159) 17/17	(251) 14/17
equal numbers not equal numbers		179.2m 176.8m	185.5m 32.5m	850.4m 39.1m	815.3m 812.9m	158.0m 86.9m	836.6m 898.9m	148.2m 53.7m	175.5m 169.2m
number and array are not equal		29.7m	80.8m	839.9m	837.8m	80.3m 82.2m	827.7m	41.3m	35.5k
0 and null are not equal		178.7m	106.4m	782.5m	897.5m	112.2m	858.1m	54.2m	169.3m
equal strings		179.5m	126.8m	829.2m	857.5m	131.8m	874.5m	122.3m	172.9m
not equal strings		173.9m 179.5m	47.7m 88.3m	841.8m 766.9m	861.8m 853.7m	55.4m 88.6m	832.1m 871.8m	41.1m 45.3m	169.4m 169.4m
empty string and null are not equal null is equal to null		181.6m	136.2m	840.6m	825.5m	138.3m	855.0m	132.6m	173.8m
equal booleans (true)		179.2m	134.2m	778.5m	801.7m	135.7m	888.7m	127.9m	172.8m
equal booleans (false)		178.6m	134.8m	804.3m	811.8m	136.7m	885.2m	125.7m	176.5m
not equal booleans		172.4m 173.2m	78.2m 79.1m	837.5m 853.8m	800.4m 828.5m	78.8m 82.6m	834.3m 838.6m	49.1m 57.4m	169.4m
1 and true are not equal 0 and false are not equal		174.4m	108.7m	788.9m	814.5m	109.1m	796.1m	57.4m	failed
NaN and NaN are equal		175.7m	79.4m	856.6m	777.4m	82.2m	746.1m	108.1m	failed
0 and -0 are equal		179.0m	115.4m	794.5m	813.6m	111.3m	857.4m	109.1m	174.7m
Infinity and Infinity are equal Infinity and -Infinity are not equal		178.3m 86.8m	126.6m 36.9m	827.7m 104.9m	801.2m 810.1m	132.6m 65.0m	830.0m 856.0m	128.5m 52.1m	174.6m 170.2m
objects	(481) 18/19	00.011	(929) 18/19	(1344) 18/19	(1731) 19/19	(870) 19/19	(1577) 18/19	(631) 18/19	(67) 17/19
empty objects are equal	(101) 10/10	2.0m	24.7m	43.6m	18.7m	12.7m	43.9m	12.8m	6.5k
equal objects (same properties "order")		1.7m	6.0m	6.8m	9.4m	5.7m	9.1m	4.4m	6.5k
equal objects (different properties "order")		1.6m	6.3m	6.9m	9.3m	6.1m	10.0m	4.7m	6.3k
not equal objects (extra property) not equal objects (different property values)		2.4m 1.4m	6.1m 1.7m	6.8m 1.7m	39.3m 10.5m	11.0m 6.3m	28.1m 12.9m	10.9m 3.3m	12.5k 12.5k
not equal objects (different property values)		2.1m	5.1m	6.0m	23.2m	9.7m	20.8m	3.3m 4.1m	12.3k
equal objects (same sub-properties)		625.7k	3.9m	4.4m	4.7m	3.2m	4.7m	2.4m	1.9k
not equal objects (different sub-property value)		622.2k	3.7m	4.4m	4.4m	3.2m	4.6m	2.4m	3.9k
not equal objects (different sub-property)		723.0k	5.4m	6.1m	5.6m	3.9m	5.8m	3.1m	4.1k
empty array and empty object are not equal object with extra undefined properties are not equal #1		11.7m 2.3m	29.3m 18.6m	42.7m 28.5m	42.9m 17.3m	25.3m 11.4m	45.5m 24.4m	18.2m 11.1m	17.1k 12.6k
object with extra undefined properties are not equal #1 object with extra undefined properties are not equal #2		2.3m	14.6m	20.5m	28.0m	11.4m 11.3m		11.1m	12.6k
object with extra undefined properties are not equal #3		2.2m	14.1m	23.6m	26.5m	9.6m	22.1m	9.4m	12.5k
nulls are equal		84.7m	58.3m	128.9m	116.5m	67.1m		65.9m	86.7m
null and undefined are not equal		82.6m	53.3m 52.7m	97.4m	96.1m	48.5m 52.9m	-	32.5m	failed 34.3k
null and empty object are not equal undefined and empty object are not equal		94.0m 80.5m	52.7m 49.8m	112.6m 76.1m	111.7m 73.2m	52.9m 48.8m	102.0m 71.9m	20.3m 19.7m	34.3k 34.7k
objects with different 'toString' functions returning same values are equal	failed		failed	failed	103.2m	12.4m		failed	failed
objects with 'toString' functions returning different values are not equal		1.4m	7.9m		105.7m	11.7m		6.1m	12.6k
arrays	(131) 7/7		(447) 7/7	(557) 7/7	(687) 7/7	(445) 7/7	(617) 7/7	(209) 6/7	7/7
two empty arrays are equal		5.3m 4.7m	26.9m 15.6m	38.2m 17.9m	42.6m 19.5m	22.1m 14.3m	31.9m 19.5m	17.3m 5.1m	6.0k 6.2k
equal arrays not equal arrays (different item)		4.7m	2.6m	2.6m	27.2m	14.3m	24.3m	5.1m 5.1m	12.3k
not equal arrays (different length)		15.5m	27.9m	36.6m	41.9m	21.9m	35.4m	19.8m	12.2k
equal arrays of objects		640.2k	3.8m	3.9m	3.9m	3.4m	4.2m	2.1m	2.0k
not equal arrays of objects		631.1k	6.0m	6.3m	6.6m	5.6m	6.8m	2.1m	6.3k
pseudo array and equivalent array are not equal Date objects	(23) 4/4	11.5m	29.9m (135) 4/4	57.4m (374) 4/4	59.7m	25.5m (102) 4/4	42.3m (341) 4/4	(61) 4/4	16.9k
equal date objects	(23) 4/4	3.3m	27.1m	84.4m	53.4m	12.6m	1 1	8.7m	7.1k
not equal date objects		3.3m	27.6m	85.9m	63.9m	12.5m	62.2m	8.8m	17.1k
date and string are not equal		6.8m	26.9m	85.6m	113.7m	37.4m	115.3m	19.8m	34.6k
date and object are not equal	(07) 5/5	7.3m	28.5m	58.2m	56.0m	25.0m	50.2m	14.4m	17.2k
RegExp objects	(37) 5/5	992.5k	(124) 5/5 1.6m	(174) 5/5 1.5m	(495) 5/5 15.2m	(293) 5/5 10.5m	(398) 5/5	(148) 4/5 failed	5/5 6.1k
equal RegExp objects not equal RegExp objects (different pattern)		992.3K	1.6m		25.2m	14.8m			16.5k
not equal RegExp objects (different flags)		979.4k	1.5m		14.3m	10.1m		8.9m	16.1k
RegExp and string are not equal		6.6m	27.9m	54.8m	107.7m	36.2m	_	20.3m	34.1k
RegExp and object are not equal		7.0m	29.0m	39.7m	39.2m	25.6m		14.0m	17.4k
functions	(156) 2/2	03.4	(77) 2/2	(126) 2/2	(196) 2/2	(86) 2/2	(181) 2/2	(79) 2/2	(74) 2/2
same function is equal different functions are not equal		93.4m 91.4m	66.6m 26.3m	113.2m 37.2m	119.0m 112.1m	60.1m 43.1m		59.0m 36.1m	78.9m 10.4m
bigint	(179) 2/2	J1. TIII	(121) 2/2	(157) 2/2	(200) 2/2	(150) 2/2	(193) 2/2	(139) 2/2	(141) 2/2
equal bigints		44.3m	39.7m	1 1	48.7m	40.6m	1 1	40.4m	44.1m
not equal bigints		44.0m	19.8m	34.6m	49.0m	33.2m	48.2m	28.2m	25.2m
Мар	(174) 17/19			(972) 11/19	(961) 11/19	(778) 19/19	(1039) 17/19	(616) 14/19	17/19
empty maps are equal	failed	43.9k	25.4m	36.6m	33.6m	13.4m			8.3k
empty maps of different class are not equal equal maps (same key "order")	failed	39.9k	28.8m 11.1m	88.7m 38.5m	97.2m 33.7m	26.1m 6.5m	failed 5.9m	9.0m	failed 8.3k
not equal maps (same key "order" - instances of different classes)	failed		28.0m	93.5m	102.6m		failed		failed
equal maps (different key "order")		39.5k	11.0m	36.2m	33.4m	6.7m	6.0m	failed	8.3k
equal maps (different key "order" - instances of the same subclass)		39.1k	17.5m		36.4m	6.4m			8.1k
not equal maps (extra key) not equal maps (different key value)		45.4k 38.6k	27.4m 2.0m		failed failed	21.5m 4.9m		8.7m 8.8m	8.3k 8.3k
not equal maps (different keys)		39.5k			failed	4.9m 8.2m		8.8m	8.2k
equal maps (same sub-keys)		18.8k	7.0m	36.5m	34.1m	3.6m	3.6m	failed	2.1k
not equal maps (different sub-key value)		18.9k		failed	failed	3.6m		8.9m	2.6k
not equal maps (different sub-key) empty map and empty object are not equal		19.2k 93.6k	6.9m 29.2m		failed 52.2m	4.7m 25.5m		6.7m 14.3m	2.7k 14.7k
map with extra undefined key is not equal #1		93.6k 46.4k	27.6m		failed	20.4m		8.8m	8.2k
map with extra undefined key is not equal #2		45.8k	27.4m		failed	20.9m	51.5m	8.9m	8.3k
		43.3k		failed	failed	12.7m		8.8m	8.4k
maps with extra undefined keys are not equal #3			51.7m		123.1m 74.2m	53.0m 49.0m	108.3m 82.1m	20.7m 20.5m	26.0k 26.3k
maps with extra undefined keys are not equal #3 null and empty map are not equal		91.7m	_51_2m	/6 Um	77.2111	TJ. UIII	02.111	20.5	14.9k
maps with extra undefined keys are not equal #3		91.7m 90.0m 91.4k	51.2m failed	76.9m 35.8m	34.0m	11.0m	65.2m	9.2m	
maps with extra undefined keys are not equal #3 null and empty map are not equal undefined and empty map are not equal	12/15	90.0m	failed		34.0m (880) 10/15	11.0m (560) 15/15	65.2m (698) 12/15	9.2m (316) 10/15	12/15
maps with extra undefined keys are not equal #3 null and empty map are not equal undefined and empty map are not equal map and a pseudo map are not equal Sets empty sets are equal		90.0m	failed (622) 13/15 24.2m	35.8m (914) 10/15 35.5m	(880) 10/15 33.1m	(560) 15/15 13.8m	(698) 12/15 55.3m	(316) 10/15 failed	12/15 7.2k
maps with extra undefined keys are not equal #3 null and empty map are not equal undefined and empty map are not equal map and a pseudo map are not equal Sets empty sets are equal empty sets of different class are not equal	12/15	90.0m 91.4k 43.9k	failed (622) 13/15 24.2m 28.9m	35.8m (914) 10/15 35.5m 91.8m	(880) 10/15 33.1m 91.1m	(560) 15/15 13.8m 26.2m	(698) 12/15 55.3m failed	(316) 10/15 failed 8.8m	12/15 7.2k failed
maps with extra undefined keys are not equal #3 null and empty map are not equal undefined and empty map are not equal map and a pseudo map are not equal Sets empty sets are equal empty sets of different class are not equal equal sets (same value "order")	failed	90.0m 91.4k	failed (622) 13/15 24.2m 28.9m 14.3m	35.8m (914) 10/15 35.5m 91.8m 34.9m	(880) 10/15 33.1m 91.1m 33.3m	(560) 15/15 13.8m 26.2m 9.0m	(698) 12/15 55.3m failed 6.3m	(316) 10/15 failed 8.8m	12/15 7.2k failed 7.1k
maps with extra undefined keys are not equal #3 null and empty map are not equal undefined and empty map are not equal map and a pseudo map are not equal Sets empty sets are equal empty sets of different class are not equal		90.0m 91.4k 43.9k	failed (622) 13/15 24.2m 28.9m	35.8m (914) 10/15 35.5m 91.8m	(880) 10/15 33.1m 91.1m	(560) 15/15 13.8m 26.2m	(698) 12/15 55.3m failed 6.3m	(316) 10/15 failed 8.8m	12/15 7.2k failed
maps with extra undefined keys are not equal #3 null and empty map are not equal undefined and empty map are not equal map and a pseudo map are not equal Sets empty sets are equal empty sets of different class are not equal equal sets (same value "order") not equal sets (same value "order" - instances of different classes)	failed	90.0m 91.4k 43.9k 42.9k	failed (622) 13/15 24.2m 28.9m 14.3m 29.2m	35.8m (914) 10/15 35.5m 91.8m 34.9m 95.5m 37.2m	(880) 10/15 33.1m 91.1m 33.3m 97.5m	(560) 15/15 13.8m 26.2m 9.0m 26.5m 9.0m 8.4m	(698) 12/15 55.3m failed 6.3m failed 6.4m 6.3m	(316) 10/15 failed 8.8m failed 8.8m failed failed	7.2k failed 7.1k failed
maps with extra undefined keys are not equal #3 null and empty map are not equal undefined and empty map are not equal map and a pseudo map are not equal Sets empty sets are equal empty sets of different class are not equal equal sets (same value "order") not equal sets (same value "order" - instances of different classes) equal sets (different value "order" - instances of the same subclass) not equal sets (different value "order" - instances of the same subclass)	failed	90.0m 91.4k 43.9k 42.9k 43.0k 41.6k 45.2k	failed (622) 13/15 24.2m 28.9m 14.3m 29.2m 14.5m 18.0m 26.2m	35.8m (914) 10/15 35.5m 91.8m 34.9m 95.5m 37.2m 39.8m	(880) 10/15 33.1m 91.1m 33.3m 97.5m 33.2m 37.2m falled	(560) 15/15 13.8m 26.2m 9.0m 26.5m 9.0m 8.4m 17.8m	(698) 12/15 55.3m failed 6.3m failed 6.4m 6.3m 46.9m	(316) 10/15 failed	12/15 7.2k failed 7.1k failed 7.2k 7.0k 7.2k 7.0k
maps with extra undefined keys are not equal #3 null and empty map are not equal undefined and empty map are not equal map and a pseudo map are not equal Sets empty sets are equal empty sets of different class are not equal equal sets (same value "order") not equal sets (same value "order" - instances of different classes) equal sets (different value "order" - instances of the same subclass) not equal sets (different value "order" - instances of the same subclass) not equal sets (different value)	failed failed	90.0m 91.4k 43.9k 42.9k 43.0k 41.6k	failed (622) 13/15 24.2m 28.9m 14.3m 29.2m 14.5m 18.0m 26.2m 11.6m	35.8m (914) 10/15 35.5m 91.8m 34.9m 95.5m 37.2m 39.8m failed	(880) 10/15 33.1m 91.1m 33.3m 97.5m 33.2m 37.2m failed falled	(560) 15/15 13.8m 26.2m 9.0m 26.5m 9.0m 8.4m 17.8m	(698) 12/15 55.3m failed 6.3m failed 6.4m 6.3m 46.9m 3.5m	(316) 10/15 failed 8.8m failed 8.8m failed 6.8m failed 8.5m 8.5m	12/15
maps with extra undefined keys are not equal #3 null and empty map are not equal undefined and empty map are not equal map and a pseudo map are not equal Sets empty sets are equal empty sets of different class are not equal equal sets (same value "order") not equal sets (same value "order" - instances of different classes) equal sets (different value "order" - instances of the same subclass) not equal sets (different value "order" - instances of the same subclass) not equal sets (different value) not equal sets (different value)	failed	90.0m 91.4k 43.9k 42.9k 43.0k 41.6k 45.2k	failed (622) 13/15 24.2m 28.9m 14.3m 29.2m 14.5m 18.0m 26.2m	35.8m (914) 10/15 35.5m 91.8m 34.9m 95.5m 37.2m 39.8m failed failed	(880) 10/15 33.1m 91.1m 33.3m 97.5m 33.2m 37.2m falled	(560) 15/15 13.8m 26.2m 9.0m 26.5m 9.0m 8.4m 17.8m	(698) 12/15 55.3m failed 6.3m failed 6.4m 6.3m 46.9m 3.5m	(316) 10/15 failed	12/15 7.2k failed 7.1k failed 7.2k 7.0k 7.2k 7.1k failed
maps with extra undefined keys are not equal #3 null and empty map are not equal undefined and empty map are not equal map and a pseudo map are not equal Sets empty sets are equal empty sets of different class are not equal equal sets (same value "order") not equal sets (same value "order" - instances of different classes) equal sets (different value "order" - instances of the same subclass) not equal sets (different value "order" - instances of the same subclass) not equal sets (different value)	failed failed	90.0m 91.4k 43.9k 42.9k 43.0k 41.6k 45.2k 43.2k	failed (622) 13/15 24.2m 28.9m 14.3m 29.2m 14.5m 18.0m 26.2m 11.6m failed	35.8m (914) 10/15 35.5m 91.8m 34.9m 95.5m 37.2m 39.8m failed failed	(880) 10/15 33.1m 91.1m 33.3m 97.5m 33.2m 37.2m failed failed failed	(560) 15/15 13.8m 26.2m 9.0m 26.5m 9.0m 8.4m 17.8m 7.7m	(698) 12/15 55.3m failed 6.3m failed 6.4m 6.3m 46.9m 3.5m failed 6.3m	(316) 10/15 failed	12/15 7.2k failed 7.1k failed 7.2k 7.0k 7.2k 7.1k
maps with extra undefined keys are not equal #3 null and empty map are not equal undefined and empty map are not equal map and a pseudo map are not equal Sets empty sets are equal empty sets of different class are not equal equal sets (same value "order") not equal sets (same value "order" - instances of different classes) equal sets (different value "order") equal sets (different value "order" - instances of the same subclass) not equal sets (extra value) not equal sets (different values) not equal sets (different values) not equal sets (same instances of objects) equal sets (same instances of objects)	failed failed	90.0m 91.4k 43.9k 42.9k 43.0k 41.6k 45.2k 43.2k 43.3k 91.0k 92.1k	failed (622) 13/15 24.2m 28.9m 14.3m 29.2m 14.5m 18.0m 26.2m 11.6m failed 8.5m 28.6m 29.4m	35.8m (914) 10/15 35.5m 91.8m 34.9m 95.5m 37.2m 39.8m failed failed failed 57.1m 58.9m	(880) 10/15 33.1m 91.1m 33.3m 97.5m 33.2m 37.2m failed failed failed 33.4m 57.2m 59.1m	(560) 15/15 13.8m 26.2m 9.0m 26.5m 9.8m 4.4m 17.8m 7.7m 9.4m 9.0m 25.0m	(698) 12/15 55.3m failed 6.3m failed 6.4m 6.3m 46.9m 3.5m failed 6.3m 40.6m	(316) 10/15 failed	12/15 7.2k failed 7.1k failed 7.2k 7.0k 7.2k 7.1k failed 7.1k 14.8k 14.8k
maps with extra undefined keys are not equal #3 null and empty map are not equal undefined and empty map are not equal map and a pseudo map are not equal Sets empty sets are equal empty sets of different class are not equal equal sets (same value "order") not equal sets (same value "order" - instances of different classes) equal sets (different value "order" - instances of the same subclass) not equal sets (different value "order" - instances of the same subclass) not equal sets (extra value) not equal sets (different instances of objects) equal sets (same instances of objects) empty set and empty object are not equal	failed failed	90.0m 91.4k 43.9k 42.9k 43.0k 41.6k 45.2k 43.2k 43.3k 91.0k	failed (622) 13/15 24.2m 28.9m 14.3m 29.2m 14.5m 18.0m 26.2m 11.6m failed 8.5m 28.6m	35.8m (914) 10/15 35.5m 91.8m 34.9m 95.5m 37.2m 39.8m failed failed 36.8m 57.1m 58.9m failed	(880) 10/15 33.1m 91.1m 33.3m 97.5m 33.2m 37.2m failed failed 33.4m 57.2m	(560) 15/15 13.8m 26.2m 9.0m 26.5m 9.6m 8.4m 17.8m 7.7m 9.4m 9.0m	(698) 12/15 55.3m failed 6.3m failed 6.4m 6.3m 46.9m 3.5m failed 6.3m 40.6m 49.6m 44.4m	(316) 10/15 failed	12/15 7.2k failed 7.1k failed 7.2k 7.0k 7.2k 7.1k failed 7.1k 14.8k

	(1516)lodash-es/isEqual	(4028)dequal	(6446)dequal/lite	(7655)fast-deep-equal	(4202)fast-deep-equal/es6	(7102)fast-equals	(2593)nano-equal	(533)deep-equal
set and pseudo set are not equal	90.7k	failed	35.1m	35.2m	11.1m	63.0m	9.2m	14.8k
Typed arrays	(1) 8/9	(483) 9/9	(317) 9/9	(467) 9/9	(639) 9/9	(290) 7/9	(187) 6/9	9/9
two empty arrays of the same class are equal	27.9k	25.3m	7.3m	10.5m	16.0m	9.0m	8.2m	5.2k
two empty arrays of the different class are not equal	41.5k	28.7m	75.4m	92.7m	25.5m	failed	failed	12.8k
equal arrays	27.3k	9.0m	1.8m	3.2m	7.2m	3.1m	3.0m	5.3k
equal BigUint64Array arrays	failed	1.5m	1.7m	1.9m	6.0m	2.6m	2.6m	5.4k
not equal BigUint64Array arrays	27.5k	1.7m	2.0m	1.9m	10.4m	3.5m	2.6m	10.0k
not equal arrays (same items, different class)	41.4k	29.0m	66.0m	97.0m	25.2m	failed	failed	12.8k
not equal arrays (different item)	27.4k	3.5m	1.1m	3.2m	11.2m	3.8m	3.0m	9.9k
not equal arrays (different length)	27.8k	24.0m	2.6m	3.5m	16.1m	4.9m	6.7m	10.0k
pseudo array and equivalent typed array are not equal	82.3k	2.5m	2.6m	4.7m	3.6m	4.4m	failed	14.7k
sample objects	(19) 1/1	(70) 1/1	(68) 1/1	(85) 1/1	(80) 1/1	(100) 1/1	(48) 1/1	1/1
big object	237.6k	877.7k	858.8k	1.1m	1.0m	1.2m	610.4k	956.6