[before] d_tip.top(I):

	.,	h h / - / .				
(index)	id	date	q	total	tip	type
0	"03"	"2011-11-14T16:28:54Z"	1	300	200	"visa"
1	"12"	"2011-11-14T17:29:52Z"	1	200	100	"visa"
2	"02"	"2011-11-14T16:20:19Z"	2	190	100	"tab"
3	"01"	"2011-11-14T16:17:54Z"	2	190	100	"tab"
4	"11"	"2011-11-14T17:25:45Z"	2	200	0	"cash"
5	"10"	"2011-11-14T17:22:59Z"	2	90	0	"tab"
6	"09"	"2011-11-14T17:07:21Z"	2	90	0	"tab"
7	"08"	"2011-11-14T16:58:03Z"	2	90	0	"tab"
8	"07"	"2011-11-14T16:54:06Z"	1	100	0	"cash"
9	"06"	"2011-11-14T16:53:41Z"	2	90	0	"tab"
10	"05"	"2011-11-14T16:48:46Z"	2	90	0	"tab"
11	"04"	"2011-11-14T16:30:43Z"	2	90	0	"tab"

[before] d_type.top(I):

(index)	id	date	0	total	tip	type
(Tildex)	Iu	date	q	totat	СТР	type
0	"12"	"2011-11-14T17:29:52Z"	1	200	100	"visa"
1	"03"	"2011-11-14T16:28:54Z"	1	300	200	"visa"
2	"10"	"2011-11-14T17:22:59Z"	2	90	0	"tab"
3	"09"	"2011-11-14T17:07:21Z"	2	90	0	"tab"
4	"08"	"2011-11-14T16:58:03Z"	2	90	0	"tab"
5	"06"	"2011-11-14T16:53:41Z"	2	90	0	"tab"
6	"05"	"2011-11-14T16:48:46Z"	2	90	0	"tab"
7	"04"	"2011-11-14T16:30:43Z"	2	90	0	"tab"
8	"02"	"2011-11-14T16:20:19Z"	2	190	100	"tab"
9	"01"	"2011-11-14T16:17:54Z"	2	190	100	"tab"
10	"11"	"2011-11-14T17:25:45Z"	2	200	0	"cash"
11	"07"	"2011-11-14T16:54:06Z"	1	100	0	"cash"

[before] g_tip.top(I):

(index)	key	value	1200011,5125
0	0	8	
1	100	3	
2	200	1	

[before] g_tip.all():

(index)	key	value
0	0	8
1	100	3
2	200	1

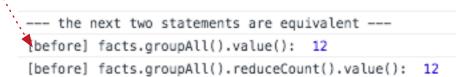
[before] g_type.top(I):

(index)	key	value	
0	"tab"	8	
1	"visa"	2	
2	"cash"	2	

[before] g_type.all():

(index)	key	value
0	"cash"	2
1	"tab"	8
2	"visa"	2

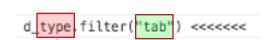
[before] facts.groupAll().value(): 12
[before] d_tip.groupAll().value(): 12
[before] d_type.groupAll().value(): 12



--- the next two statements are equivalent --
[before] d_tip.groupAll().value(): 12

[before] d_tip.groupAll().reduceCount().value(): 12

--- the next two statements are equivalent --[before] d_type.groupAll().value(): 12
[before] d_type.groupAll().reduceCount().value(): 12



d_tip.top(I):

(ind…	id	date	qu	total	tip	type
0	"02"	"2011-11-14T16:20:19Z"	2	190	100	"tab"
1	"01"	"2011-11-14T16:17:54Z"	2	190	100	"tab"
2	"10"	"2011-11-14T17:22:59Z"	2	90	0	"tab"
3	"09"	"2011-11-14T17:07:21Z"	2	90	0	"tab"
4	"08"	"2011-11-14T16:58:03Z"	2	90	0	"tab"
5	"06"	"2011-11-14T16:53:41Z"	2	90	0	"tab"
6	"05"	"2011-11-14T16:48:46Z"	2	90	0	"tab"
7	"04"	"2011-11-14T16:30:43Z"	2	90	0	"tab"

d_type.top(I):

						F	
(inde…	id	date	``	q	total	tip	type
0	"10"	"2011-11-	-14T17:22:59Z'	" 2	90	0	"tab"
1	"09"	"2011-11-	-14T17:07:21Z'	2	90	0	"tab"
2	"08"	"2011-11-	-14T16:58:03Z	" 2	90	0	"tab"
3	"06"	"2011-11-	-14T16:53:41Z	2	90	0	"tab"
4	"05"	"2011-11-	-14T16:48:46Z'	" 2	90	0	"tab"
5	"04"	"2011-11-	-14T16:30:43Z	2	90	0	"tab"
6	"02"	"2011-11-	-14T16:20:19Z'	" 2	190	100	"tab"
7	"01"	"2011-11-	-14T16:17:54Z'	2	190	100	"tab"

g_tip.top(I):

(index)	key	V	alue	
0	0	6	j	8 to 6 b/c id=[11,07] is excluded
1	100	2	2	3 to 2 b/c id=12 is excluded
2	200	0)	1 to 0 b/c id=03 is excluded

g_tip.all():

(i	ndex)	key	ļ.	val	ue	
0		0	,	6	8 to 6 b/	c id=[11,07] is excluded
1		100		2	3 to 2 b/	c id=12 is excluded
2		200		0	1 to 0 b/	c id=03 is excluded



	*,	· _		<u> </u>	
g_type.all()	•			per til	ans rassurijetae
(index)		key		value	
0		"cash"		2	X.
1		"tab"	`	8	
2		"visa"		2	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \

facts.groupAll().value(): 8
d_tip.groupAll().value(): 8
d_type.groupAll().value(): 12

Note: a grouping intersects the crossfilter's current filters, except for the associated dimension's filter. Thus, group methods consider only records that satisfy every filter except this dimension's filter. So, if the crossfilter of payments is filtered by type and total, then group by total only observes the filter by type.

--- the next two statements are equivalent --- facts.groupAll().value(): 8
facts.groupAll().reduceCount().value(): 8

Dimension.groupAll() observe all filter except its own filter (ie., tip)

d_tip.groupAll().value(): 8

d_tip.groupAll().reduceCount().value(): 8

--- the next two statements are equivalent --d_type_groupAll().value(): 12
d_type_groupAll().reduceCount().value(): 12

__ Dimension.groupAll() observe all filter except its own filter (ie., type) and since the filter is its own, no change in cardinal (12 to 12)

--- applying reduceSum ---

[before] facts.groupAll().reduceSum(d=>.d.total).value(): 1720
[before] d_tip.groupAll().reduceSum(d=>.d.total).value(): 1720

[before] d_type.groupAll().reduceSum(d=>.d.total).value(): 1720

--- applying reduceSum --
facts.groupAll().reduceSum(d=>.d.total).value(): 920

d_tip_groupAll().reduceSum(d=>.d.total).value(): 920

d_type_groupAll().reduceSum(d=>.d.total).value(): 1720