

SCOPE AND DIRECTION IN QUICK TABLE CALCULATIONS

Scope and **direction** are terms that describe how a table calculation is computed relative to the table.

Scope: The scope defines the boundaries within which a given table calculation can reference other values

e.g: Table, Pane, Cell

Direction: The direction defines how the table calculation moves within the scope

e.g: Across, Down

The dimensions that define how to group the calculation (the **scope** of data it is performed on) are called **partitioning fields**.

The table calculation is performed separately within each partition.

The remaining dimensions, upon which the table calculation is performed, are called **addressing fields**, and determine the direction of the calculation.

SCOPE AND DIRECTION IN QUICK TABLE CALCULATIONS

When we select any quick table calculation e.g: **Percent of Total** in Tableau i.e., Right-click measure > **Quick Table Calculation** > **Percent of Total** the default computation method would be **Table (Across)**

Here the **Scope** will be the **table**, and the **direction** is **across**

EXAMPLE 1 FOR SCOPE AND DIRECTION

Step 1: Let us start with the below mentioned Viz

Row Shelf: Category, Sub-Category

Columns Shelf: Region, Segment

Filters Shelf: Category (with Furniture and Office Supplies selected)
Region (with Central and South selected)

Text: Sales

Pages

Columns

Region

Segment

Rows

Category

Sub-Category

Filters

Category

Region

Marks

Automatic

Color

Size

Text

Detail

Tooltip

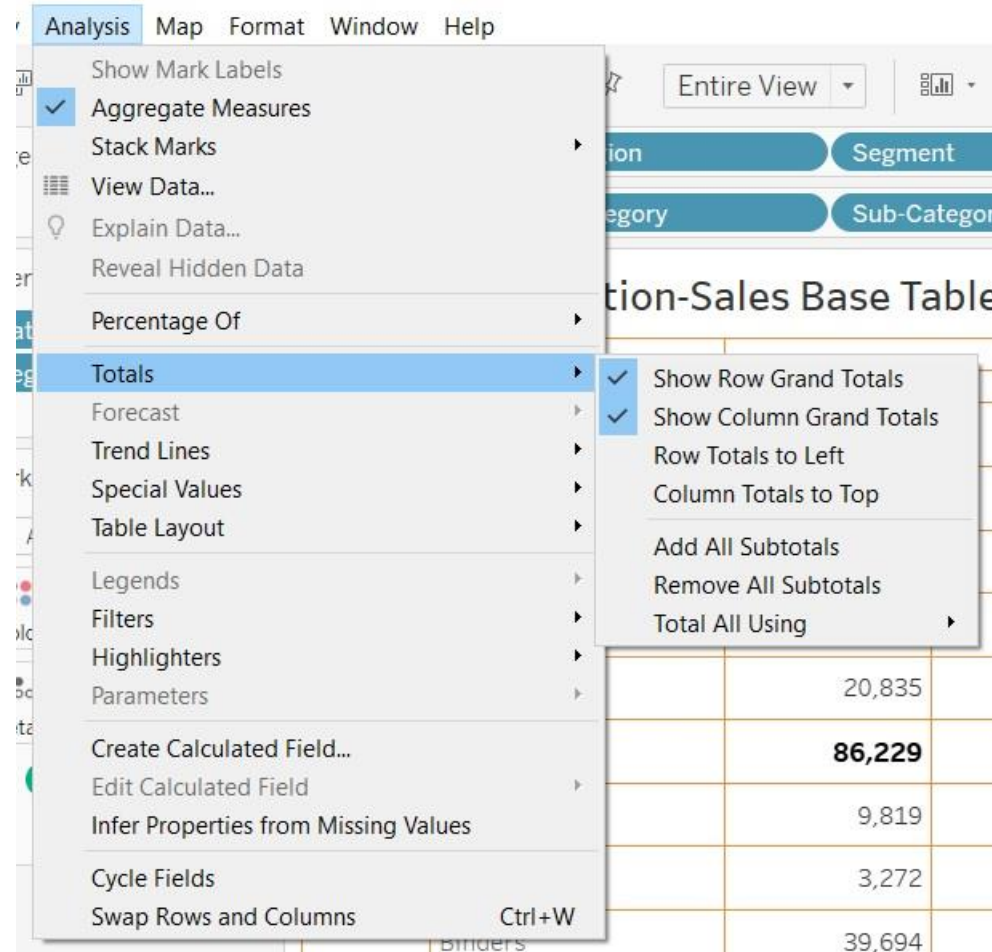
SUM(Sales)

Scope and Direction-Sales Base Table

		Region / Segment								
		Central				South				
Category	Sub-Category	Consumer	Corporate	Home Office	Total	Consumer	Corporate	Home Office	Total	Grand Total
Furniture	Bookcases	12,961	8,390	2,807	24,157	8,717	1,154	1,029	10,899	35,057
	Chairs	42,933	27,990	14,308	85,231	26,804	11,367	7,005	45,176	130,407
	Furnishings	9,500	3,144	2,610	15,254	10,871	4,505	1,931	17,307	32,561
	Tables	20,835	12,563	5,757	39,155	24,409	12,620	6,888	43,916	83,071
	Total	86,229	52,086	25,482	163,797	70,800	29,645	16,853	117,299	281,096
Office Supplies	Appliances	9,819	5,225	8,539	23,582	8,287	10,124	1,114	19,525	43,107
	Art	3,272	1,479	1,014	5,765	2,655	1,332	668	4,656	10,421
	Binders	39,694	8,880	8,350	56,923	18,618	11,828	6,585	37,030	93,954
	Envelopes	2,365	1,236	1,036	4,637	1,192	1,471	683	3,346	7,982
	Fasteners	422	232	123	778	276	81	146	503	1,281
	Labels	743	1,095	613	2,451	1,868	365	120	2,353	4,805
	Paper	7,564	5,952	3,976	17,492	7,603	3,345	3,202	14,151	31,643
	Storage	24,672	12,657	8,602	45,930	16,882	11,362	7,524	35,768	81,698
	Supplies	4,560	4,383	525	9,467	2,124	6,022	173	8,319	17,786
	Total	93,111	41,138	32,777	167,026	59,505	45,930	20,217	125,651	292,678
Grand Total		179,341	93,223	58,260	330,824	130,305	75,575	37,070	242,950	573,774

EXAMPLE 1 FOR SCOPE AND DIRECTION

Step 2: Ensure that all Totals are selected



EXAMPLE 1 FOR SCOPE AND DIRECTION

Step 3: Right-click Sales, Quick Table Calculation > Running Total

Pages

Filters

Category

Region

Marks

Automatic

Color

Size

Text

Detail

Tooltip

SUM(Sales)

Columns

Region

Segment

Rows

Category

Sub-Category

Scope and Direction-Sales Running Total

		Region / Segment								Grand Total
		Central				South				
Category	Sub-Category	Consumer	Corporate	Home Office	Total	Consumer	Corporate	Home Office	Total	
Furniture	Bookcases	12,961	8,390	2,807	24,157	8,717	1,154	1,029	10,899	35,057
	Chairs	42,933	27,990	14,308	85,231	26,804	11,367	7,005	45,176	130,407
	Furnishings	9,500	3,144	2,610	15,254	10,871	4,505	1,931	17,307	32,561
	Tables	20,835	12,563	5,757	39,155	24,409	12,620	6,888	43,916	83,071
	Total	86,229	52,086	25,482	163,797	70,800	29,645	16,853	117,299	281,096
Electronics	Computers	9,819	5,225	8,539	23,582	8,287	10,124	1,114	19,525	43,107
	Smartphones	3,272	1,479	1,014	5,765	2,655	1,332	668	4,656	10,421
	Tablets	39,694	8,880	8,350	56,923	18,618	11,828	6,585	37,030	93,954
	Wearables	2,365	1,236	1,036	4,637	1,192	1,471	683	3,346	7,982
	Other Electronics	422	232	123	778	276	81	146	503	1,281
Services	Cloud Services	743	1,095	613	2,451	1,868	365	120	2,353	4,805
	Consulting	7,564	5,952	3,976	17,492	7,603	3,345	3,202	14,151	31,643
	Managed IT	21,672	12,657	8,602	45,930	16,882	11,362	7,524	35,768	81,698
	IT Support	560	4,383	525	9,467	2,124	6,022	173	8,319	17,786
	Total	111	41,138	32,777	167,026	59,505	45,930	20,217	125,651	292,678
Grand Total		341	93,223	58,260	330,824	130,305	75,575	37,070	242,950	573,774

Filter...

Show Filter

Apply to Worksheets

Format...

Include in Tooltip

Dimension

Attribute

Measure (Sum)

Discrete

Continuous

Edit in Shelf

Add Table Calculation...

Quick Table Calculation

Total using (Automatic)

Remove

Running Total

Difference

Percent Difference

Percent of Total

Rank

Percentile

Moving Average

YTD Total

Compound Growth Rate

Year Over Year Growth

YTD Growth

EXAMPLE 1 FOR SCOPE AND DIRECTION

Step 4: Right-click Sales, Edit Table Calculation

Pages

Filters

Category

Region

Marks

Automatic

Color

Size

Text

Detail

Tooltip

SUM(Sales)

Columns

Region

Segment

Rows

Category

Sub-Category

Scope and Direction-Sales Running Total

		Region / Segment								
		Central				South				Grand Total
Category	Sub-Category	Consumer	Corporate	Home Office	Total	Consumer	Corporate	Home Office	Total	
Furniture	Bookcases	12,961	21,350	24,157	24,157	32,874	34,028	35,057	35,057	35,057
	Chairs	42,933	70,923	85,231	85,231	112,035	123,402	130,407	130,407	130,407
	Furnishings	9,500	12,644	15,254	15,254	26,125	30,630	32,561	32,561	32,561
	Tables	20,835	33,398	39,155	39,155	63,564	76,183	83,071	83,071	83,071
	Total	86,229	138,315	163,797	163,797	234,597	264,242	281,096	281,096	281,096
Electronics	Computers	9,819	15,043	23,582	23,582	31,869	41,993	43,107	43,107	43,107
	Smartphones	3,272	4,751	5,765	5,765	8,420	9,753	10,421	10,421	10,421
	Tablets	39,694	48,573	56,923	56,923	75,541	87,369	93,954	93,954	93,954
	Wearables	2,365	3,601	4,637	4,637	5,828	7,299	7,982	7,982	7,982
	Other	422	655	778	778	1,054	1,135	1,281	1,281	1,281
Services	Cloud	743	1,838	2,451	2,451	4,320	4,685	4,805	4,805	4,805
	Consulting	7,564	13,516	17,492	17,492	25,095	28,440	31,643	31,643	31,643
	IT Support	24,672	37,328	45,930	45,930	62,812	74,174	81,698	81,698	81,698
	Training	4,560	8,943	9,467	9,467	11,591	17,613	17,786	17,786	17,786
	Total	93,111	134,249	167,026	167,026	226,531	272,461	292,678	292,678	292,678
Grand Total		179,341	272,564	330,824	330,824	461,128	536,704	573,774	573,774	573,774

Filter...

Show Filter

Format...

Include in Tooltip

Dimension

Attribute

Measure (Sum)

Discrete

Continuous

Edit in Shelf

Compute Using

Edit Table Calculation...

Clear Table Calculation

Quick Table Calculation

Total using (Automatic)

Remove

EXAMPLE 1 FOR SCOPE AND DIRECTION

Step 5: The default **Compute Using** option is **Table (across)**

Computes **across the length of the table** and **restarts after every partition**.

For example, in the following table, the calculation is computed across columns **Region/Segment** for every row **Sub-Category**.

Table Calculation

Running Sum of Sales

Calculation Type

Running Total

Sum

Compute Using

Table (across)

Table (down)

Table (across then down)

Table (down then across)

Pane (across)

Pane (down)

Pane (across then down)

Pane (down then across)

Cell

Specific Dimensions

☒ Region

☒ Segment

☐ Category

☐ Sub-Category

Restarting every

☐ Add secondary calculation

☒ Show calculation assistance

Scope and Direction-Sales Running Total

Category	Sub-Category	Region / Segment								Grand Total
		Central				South				
		Consumer	Corporate	Home Office	Total	Consumer	Corporate	Home Office	Total	
Furniture	Bookcases	12,961	21,350	24,157	24,157	32,874	34,028	35,057	35,057	35,057
	Chairs	42,933	70,923	85,231	85,231	112,035	123,402	130,407	130,407	130,407
	Furnishings	9,500	12,644	15,254	15,254	26,125	30,630	32,561	32,561	32,561
	Tables	20,835	33,398	39,155	39,155	63,564	76,183	83,071	83,071	83,071
	Total	86,229	138,315	163,797	163,797	234,597	264,242	281,096	281,096	281,096
Office Supplies	Appliances	9,819	15,043	23,582	23,582	31,869	41,993	43,107	43,107	43,107
	Art	3,272	4,751	5,765	5,765	8,420	9,753	10,421	10,421	10,421
	Binders	39,694	48,573	56,923	56,923	75,541	87,369	93,954	93,954	93,954
	Envelopes	2,365	3,601	4,637	4,637	5,828	7,299	7,982	7,982	7,982
	Fasteners	422	655	778	778	1,054	1,135	1,281	1,281	1,281
	Labels	743	1,838	2,451	2,451	4,320	4,685	4,805	4,805	4,805
	Paper	7,564	13,516	17,492	17,492	25,095	28,440	31,643	31,643	31,643
	Storage	24,672	37,328	45,930	45,930	62,812	74,174	81,698	81,698	81,698
	Supplies	4,560	8,943	9,467	9,467	11,591	17,613	17,786	17,786	17,786
	Total	93,111	134,249	167,026	167,026	226,531	272,461	292,678	292,678	292,678
	Grand Total	179,341	272,564	330,824	330,824	461,128	536,704	573,774	573,774	573,774

EXAMPLE 1 FOR SCOPE AND DIRECTION

Step 6: Change the Compute Using option to Table (down)

Computes **down the length of the table** and **restarts after every partition**.

For example, in the following table, the calculation is computed down the row combination Category/Sub-Category for every column combination Region/Segment.

Analytics

Pages

Columns

Region

Segment

Rows

Category

Sub-Category

Table Calculation

Running Sum of Sales

Calculation Type

Running Total

Sum

Compute Using

Table (across)

Table (down)

Table (across then down)

Table (down then across)

Pane (across)

Pane (down)

Pane (across then down)

Pane (down then across)

Cell

Specific Dimensions

Category

Sub-Category

Region

Segment

Restarting every

Add secondary calculation

Show calculation assistance

Scope and Direction-Sales Running Total

		Region / Segment								
		Central				South				
Category	Sub-Category	Consumer	Corporate	Home Office	Total	Consumer	Corporate	Home Office	Total	Grand Total
Furniture	Bookcases	12,961	8,390	2,807	24,157	8,717	1,154	1,029	10,899	35,057
	Chairs	55,894	36,379	17,115	109,388	35,521	12,521	8,034	56,076	165,464
	Furnishings	65,394	39,523	19,725	124,642	46,391	17,025	9,966	73,382	198,025
	Tables	86,229	52,086	25,482	163,797	70,800	29,645	16,853	117,299	281,096
	Total	86,229	52,086	25,482	163,797	70,800	29,645	16,853	117,299	281,096
Office Supplies	Appliances	96,048	57,310	34,021	187,379	79,088	39,769	17,968	136,824	324,203
	Art	99,320	58,789	35,035	193,145	81,742	41,101	18,636	141,480	334,624
	Binders	139,014	67,669	43,385	250,068	100,360	52,929	25,221	178,510	428,578
	Envelopes	141,379	68,905	44,421	254,705	101,552	54,400	25,904	181,856	436,560
	Fasteners	141,802	69,137	44,544	255,483	101,828	54,480	26,051	182,359	437,842
	Labels	142,545	70,232	45,157	257,934	103,696	54,845	26,170	184,712	442,646
	Paper	150,109	76,184	49,133	275,426	111,299	58,191	29,373	198,863	474,289
	Storage	174,781	88,840	57,735	321,356	128,181	69,553	36,897	234,631	555,987
	Supplies	179,341	93,223	58,260	330,824	130,305	75,575	37,070	242,950	573,774
	Total	179,341	93,223	58,260	330,824	130,305	75,575	37,070	242,950	573,774
Grand Total		179,341	93,223	58,260	330,824	130,305	75,575	37,070	242,950	573,774

EXAMPLE 1 FOR SCOPE AND DIRECTION

Step 7: Change the **Compute Using** option to **Table (across then down)**

Computes **across the length of the table**, and then **down the length of the table**. In the below example the calculation is computed across Region/Segment for the length of the table, down a Sub-Category, and then across Region/Segment for the length of the table again

Analytics < Pages

Columns Region Segment

Rows Category Sub-Category

Table Calculation

Running Sum of Sales

Calculation Type

Running Total

Sum

Compute Using

Table (across)

Table (down)

Table (across then down)

Table (down then across)

Pane (across)

Pane (down)

Pane (across then down)

Pane (down then across)

Cell

Specific Dimensions

☒ Category

☒ Sub-Category

☒ Region

☒ Segment

Restarting every

☐ Add secondary calculation

☒ Show calculation assistance

Scope and Direction-Sales Running Total

		Region / Segment								Grand Total
		Central				South				
Category	Sub-Category	Consumer	Corporate	Home Office	Total	Consumer	Corporate	Home Office	Total	
Furniture	Bookcases	12,961	21,330	24,137	24,137	32,874	34,026	35,037	35,037	35,057
	Chairs	77,930	105,870	120,287	120,287	147,891	159,458	165,464	165,464	165,464
	Furnishings	174,904	176,168	166,716	166,716	191,383	196,093	198,023	198,023	198,025
	Tables	218,860	231,422	237,180	237,180	261,588	274,208	281,096	281,096	281,096
	Total	86,229	138,315	163,797	163,797	234,597	264,242	281,096	281,096	281,096
Office Supplies	Appliances	290,915	296,139	304,678	304,678	312,965	323,089	324,203	324,203	324,203
	Art	327,476	328,954	329,969	329,969	332,623	333,956	334,624	334,624	334,624
	Binders	374,318	383,197	391,547	391,547	410,165	421,993	428,578	428,578	428,578
	Envelopes	430,943	432,179	433,215	433,215	434,406	435,877	436,560	436,560	436,560
	Fasteners	436,983	437,215	437,338	437,338	437,615	437,695	437,842	437,842	437,842
	Labels	438,585	439,680	440,293	440,293	442,161	442,526	442,646	442,646	442,646
	Paper	450,210	456,162	460,138	460,138	467,741	471,087	474,289	474,289	474,289
	Storage	498,961	511,618	520,219	520,219	537,101	548,463	555,987	555,987	555,987
	Supplies	566,347	564,930	563,433	563,433	567,376	573,000	573,774	573,774	573,774
	Total	374,267	413,543	440,122	440,122	507,827	533,337	573,774	573,774	573,774
Grand Total		179,341	272,564	330,824	330,824	461,128	536,704	573,774	573,774	573,774

EXAMPLE 1 FOR SCOPE AND DIRECTION

Step 8: Change the Compute Using option to Table (down then across)

Computes **down the length of the table**, and then **across the length of the table**.

In the below example the calculation is computed down Category/Sub-Category for the length of the table, across a Region/Segment, and then again down

Table Calculation
Running Sum of Sales

Calculation Type

Running Total

Sum

Compute Using

Table (across)

Table (down)

Table (across then down)

Table (down then across)

Pane (across)

Pane (down)

Pane (across then down)

Pane (down then across)

Cell

Specific Dimensions

☒ Region

☒ Segment

☒ Category

☒ Sub-Category

Restarting every

☐ Add secondary calculation

☒ Show calculation assistance

Scope and Direction-Sales Running Total

		Region / Segment								Grand Total
Category	Sub-Category	Central				South				
		Consumer	Corporate	Home Office	Total	Consumer	Corporate	Home Office	Total	
Furniture	Bookcases	12,961	187,730	275,371	24,157	339,540	461,282	531,733	341,723	35,057
	Chairs	55,894	215,720	209,679	109,388	366,344	471,649	544,738	386,899	165,464
	Furnishings	65,894	218,864	292,289	124,642	377,215	471,154	646,669	404,206	198,025
	Tables	86,229	231,426	298,046	163,797	401,624	491,773	553,557	448,122	281,096
	Total	86,229	231,426	298,046	163,797	401,624	491,773	553,557	448,122	281,096
Office Supplies	Appliances	96,448	236,651	306,585	187,379	409,911	501,897	554,671	467,648	324,203
	Art	99,820	238,130	307,599	193,145	412,566	501,229	553,340	472,303	334,624
	Binders	139,414	247,009	316,949	250,068	431,184	511,057	561,925	509,334	428,578
	Envelopes	141,879	248,245	316,985	254,705	432,375	511,528	562,608	512,679	436,560
	Fasteners	141,802	248,477	317,108	255,483	432,652	511,609	562,754	513,182	437,842
	Labels	142,345	249,572	317,721	257,934	434,520	511,974	562,874	515,536	442,646
	Paper	150,109	255,524	321,697	275,426	442,123	511,319	566,076	529,687	474,289
	Storage	174,781	268,181	330,299	321,356	459,005	531,681	573,600	565,455	555,987
	Supplies	179,341	272,564	330,824	330,824	461,128	531,704	573,774	573,774	573,774
	Total	179,341	272,564	330,824	330,824	461,128	531,704	573,774	573,774	573,774
	Grand Total	179,341	272,564	330,824	330,824	461,128	531,704	573,774	573,774	573,774

EXAMPLE 1 FOR SCOPE AND DIRECTION

Step 9: Change the Compute Using option to Pane (across)

Computes **across** an entire pane.

In this example it computes across Region which forms the pane.

Table Calculation
Running Sum of Sales

Calculation Type

Running Total

Sum

Compute Using

Table (across)

Table (down)

Table (across then down)

Table (down then across)

Pane (across)

Pane (down)

Pane (across then down)

Pane (down then across)

Cell

Specific Dimensions

☒ Segment

☐ Category

☐ Region

☐ Sub-Category

Restarting every

☐ Add secondary calculation

☒ Show calculation assistance

		Region / Segment								Grand Total
Category	Sub-Category	Central				South				
		Consumer	Corporate	Home Office	Total	Consumer	Corporate	Home Office	Total	
Furniture	Bookcases	12,961	21,350	24,157	24,157	8,717	9,870	10,899	10,899	35,057
	Chairs	42,933	70,923	85,231	85,231	26,804	38,171	45,176	45,176	130,407
	Furnishings	9,500	12,644	15,254	15,254	10,871	15,375	17,307	17,307	32,561
	Tables	20,835	33,398	39,155	39,155	24,409	37,029	43,916	43,916	83,071
	Total	86,229	138,315	163,797	163,797	70,800	100,445	117,299	117,299	281,096
Office Supplies	Appliances	9,819	15,043	23,582	23,582	8,287	18,411	19,525	19,525	43,107
	Art	3,272	4,751	5,765	5,765	2,655	3,987	4,656	4,656	10,421
	Binders	39,694	48,573	56,923	56,923	18,618	30,445	37,030	37,030	93,954
	Envelopes	2,365	3,601	4,637	4,637	1,192	2,662	3,346	3,346	7,982
	Fasteners	422	655	778	778	276	357	503	503	1,281
	Labels	743	1,838	2,451	2,451	1,868	2,233	2,353	2,353	4,805
	Paper	7,564	13,516	17,492	17,492	7,603	10,949	14,151	14,151	31,643
	Storage	24,672	37,328	45,930	45,930	16,882	28,244	35,768	35,768	81,698
	Supplies	4,560	8,943	9,467	9,467	2,124	8,146	8,319	8,319	17,786
	Total	93,111	134,249	167,026	167,026	59,505	105,435	125,651	125,651	292,678
Grand Total		179,341	272,564	330,824	330,824	130,305	205,880	242,950	242,950	573,774

EXAMPLE 1 FOR SCOPE AND DIRECTION

Step 10: Change the **Compute Using** option to **Pane (down)**

Computes **down** an entire pane.

In this example it computes down Category which forms the pane.

Analytics

Pages

File - Superst...

Table Calculation

Running Sum of Sales

Calculation Type

Running Total

Sum

Compute Using

Table (across)

Table (down)

Table (across then down)

Table (down then across)

Pane (across)

Pane (down)

Pane (across then down)

Pane (down then across)

Cell

Specific Dimensions

☒ Sub-Category

☐ Category

☐ Region

☐ Segment

Restarting every

☐ Add secondary calculation

☒ Show calculation assistance

Columns

Region

Segment

Rows

Category

Sub-Category

Scope and Direction-Sales Running Total

Category	Sub-Category	Region / Segment								Grand Total
		Central				South				
		Consumer	Corporate	Home Office	Total	Consumer	Corporate	Home Office	Total	
Furniture	Bookcases	12,961	8,390	2,807	24,157	8,717	1,154	1,029	10,899	35,057
	Chairs	55,894	36,379	17,115	109,388	35,521	12,521	8,034	56,076	165,464
	Furnishings	65,394	39,523	19,725	124,642	46,391	17,025	9,966	73,382	198,025
	Tables	86,229	52,086	25,482	163,797	70,800	29,645	16,853	117,299	281,096
	Total	86,229	52,086	25,482	163,797	70,800	29,645	16,853	117,299	281,096
Office Supplies	Appliances	9,819	5,225	8,539	23,582	8,287	10,124	1,114	19,525	43,107
	Art	13,091	6,704	9,553	29,347	10,942	11,456	1,783	24,181	53,528
	Binders	52,785	15,583	17,903	86,271	29,560	23,284	8,368	61,211	147,482
	Envelopes	55,150	16,819	18,938	90,908	30,751	24,755	9,051	64,557	155,464
	Fasteners	55,573	17,051	19,062	91,686	31,028	24,835	9,197	65,060	156,746
	Labels	56,316	18,146	19,675	94,137	32,896	25,200	9,317	67,413	161,550
	Paper	63,880	24,098	23,651	111,629	40,499	28,546	12,519	81,564	193,193
	Storage	88,552	36,755	32,253	157,559	57,381	39,908	20,043	117,332	274,891
	Supplies	93,111	41,138	32,777	167,026	59,505	45,930	20,217	125,651	292,678
	Total	93,111	41,138	32,777	167,026	59,505	45,930	20,217	125,651	292,678
Grand Total	179,341	93,223	58,260	330,824	130,305	75,575	37,070	242,950	573,774	

EXAMPLE 2 FOR SCOPE AND DIRECTION

Step 1: Let us start with the below mentioned Viz

Row Shelf: Segment, Category

Columns Shelf: Region

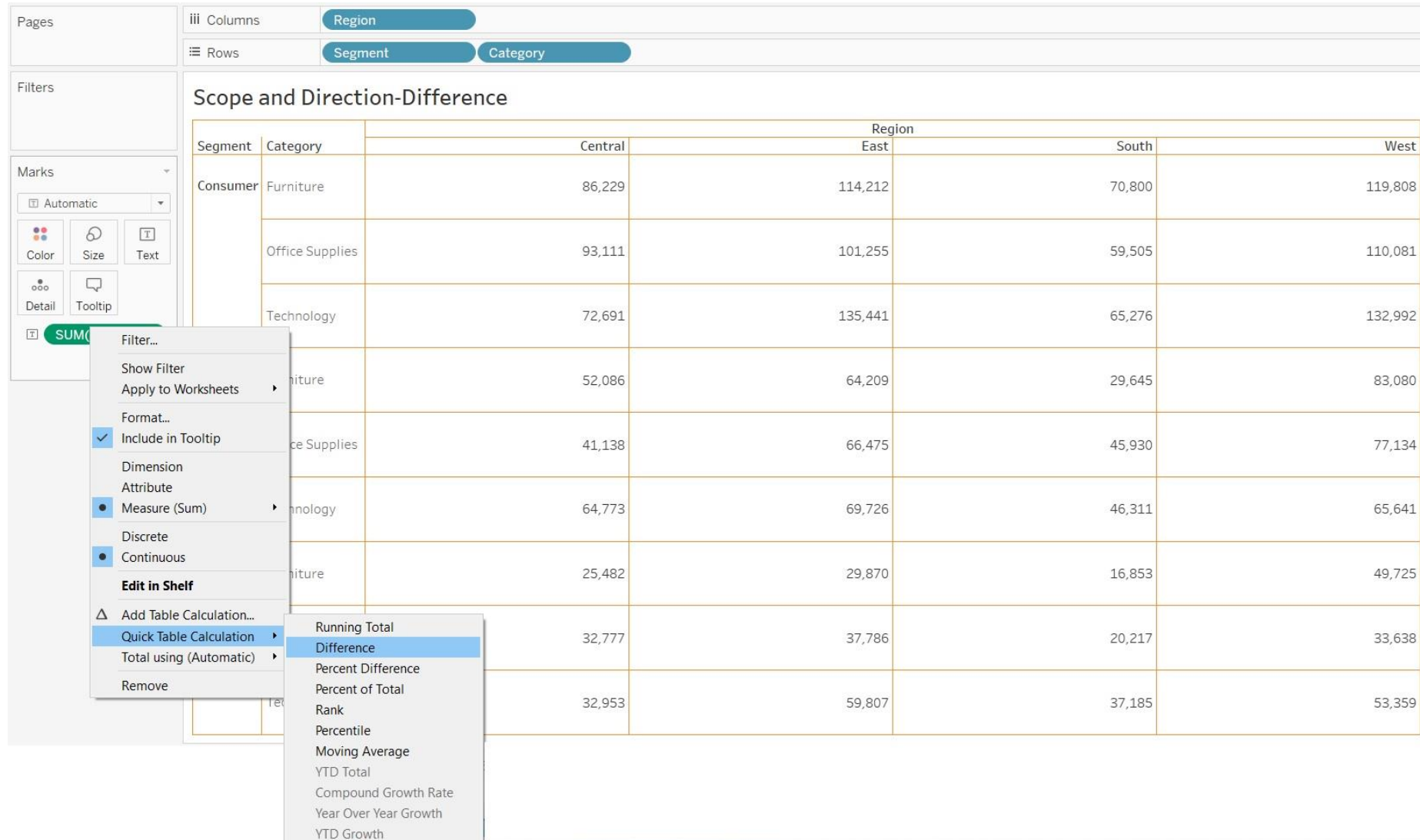
Text: Sales

Pages	iii Columns	Region
	Rows	Segment Category
Filters	Scope and Direction-Sales Region, Segment and Category Base Table	
Marks		
Automatic		
Color	Size	Text
Detail	Tooltip	
SUM(Sales)		

Segment	Category	Region			
		Central	East	South	West
Consumer	Furniture	86,229	114,212	70,800	119,808
	Office Supplies	93,111	101,255	59,505	110,081
	Technology	72,691	135,441	65,276	132,992
Corporate	Furniture	52,086	64,209	29,645	83,080
	Office Supplies	41,138	66,475	45,930	77,134
	Technology	64,773	69,726	46,311	65,641
Home Office	Furniture	25,482	29,870	16,853	49,725
	Office Supplies	32,777	37,786	20,217	33,638
	Technology	32,953	59,807	37,185	53,359

EXAMPLE 2 FOR SCOPE AND DIRECTION

Step 2: Right-click Sales, Quick Table Calculation > Difference



The screenshot shows the Tableau interface with a table calculation menu open. The menu is titled "SUM" and includes options like "Filter...", "Show Filter", "Apply to Worksheets", "Format...", "Include in Tooltip", "Dimension", "Attribute", "Measure (Sum)", "Discrete", "Continuous", "Edit in Shelf", "Add Table Calculation...", "Quick Table Calculation", "Total using (Automatic)", and "Remove". The "Quick Table Calculation" option is selected, and a sub-menu is displayed with options: "Running Total", "Difference", "Percent Difference", "Percent of Total", "Rank", "Percentile", "Moving Average", "YTD Total", "Compound Growth Rate", "Year Over Year Growth", and "YTD Growth". The "Difference" option is highlighted in the sub-menu.

Columns: Region
Rows: Segment, Category

Scope and Direction-Difference

Segment	Category	Central	East	South	West
Consumer	Furniture	86,229	114,212	70,800	119,808
	Office Supplies	93,111	101,255	59,505	110,081
	Technology	72,691	135,441	65,276	132,992
	Furniture	52,086	64,209	29,645	83,080
	Office Supplies	41,138	66,475	45,930	77,134
	Technology	64,773	69,726	46,311	65,641
	Furniture	25,482	29,870	16,853	49,725
	Office Supplies	32,777	37,786	20,217	33,638
	Technology	32,953	59,807	37,185	53,359

EXAMPLE 2 FOR SCOPE AND DIRECTION

Step 3: Right-click Sales, Edit Table Calculation

The screenshot shows the Tableau interface with the following setup:

- Columns:** Region
- Rows:** Segment, Category
- Table Calculation:** SUM (Right-clicked, with 'Edit Table Calculation...' selected in the context menu)

The resulting table is titled "Scope and Direction-Difference" and displays the following data:

Segment	Category	Region			
		Central	East	South	West
Consumer	Furniture		27,983	-43,412	49,008
	Office Supplies		8,144	-41,751	50,576
	Technology		62,750	-70,165	67,716
	Furniture		12,123	-34,564	53,435
	Office Supplies		25,337	-20,545	31,204
	Technology		4,953	-23,415	19,331
	Furniture		4,388	-13,017	32,871
	Office Supplies		5,009	-17,570	13,422
	Technology		26,854	-22,622	16,174

EXAMPLE 2 FOR SCOPE AND DIRECTION

Step 4: Change the **Compute Using** option to **Pane (across then down)**

Computes **across an entire pane** and then **down the pane**.

In the below example the calculation is computed across Region for the length of the pane, down a category, and then across Region for the length of the pane again

Analytics < Pages

Columns: Region

Rows: Segment, Category

Table Calculation: Difference in Sales

Calculation Type: Difference From

Compute Using:

- Table (across)
- Table (down)
- Table (across then down)
- Table (down then across)
- Pane (down)
- Pane (across then down)**
- Pane (down then across)
- Cell

Specific Dimensions:

- ☒ Category
- ☒ Region
- ☐ Segment

At the level:

Relative to: Previous

☒ Show calculation assistance

Scope and Direction-Difference

Segment	Category	Region			
		Central	East	South	West
Consumer	Furniture		27,363	43,412	7,008
	Office Supplies	-26,697	8,144	41,761	7,576
	Technology	-37,390	63,750	70,165	7,716
Corporate	Furniture		12,123	-34,564	53,435
	Office Supplies	-41,942	25,337	-20,545	31,204
	Technology	-12,361	4,953	-23,415	19,331
Home Office	Furniture		4,388	-13,017	32,871
	Office Supplies	-16,947	5,009	-17,570	13,422
	Technology	-685	26,854	-22,622	16,174

EXAMPLE 2 FOR SCOPE AND DIRECTION

Step 5: Change the **Compute Using** option to **Pane (down then across)**

Computes **down an entire pane** and then **across the pane**.

In the below example the calculation is computed down Category for the length of the pane, across a Region, and then down Category for the length of the pane again

Table Calculation: Difference in Sales

Calculation Type: Difference From

Compute Using: Pane (down then across)

Specific Dimensions: ☒ Region, ☒ Category, ☐ Segment

At the level: Previous

Relative to: Previous

☒ Show calculation assistance

Scope and Direction-Difference

Segment	Category	Region			
		Central	East	South	West
Consumer	Furniture		41,521	-64,641	54,532
	Office Supplies	6,382	-12,957	-11,296	-9,727
	Technology	-20,721	34,186	5,772	22,911
Corporate	Furniture		-563	-40,081	36,769
	Office Supplies	-10,948	2,266	16,285	-5,946
	Technology	23,635	3,251	381	-11,493
Home Office	Furniture		-3,083	-42,954	12,540
	Office Supplies	7,295	7,916	3,363	-16,086
	Technology	176	22,021	16,968	19,720