43. Funciones TIME INTELLIGENCE usando DAX

Funciones TIME INTELLIGENCE

```
1  Ventas = SUM(Sales[Venta])
```

SAMEPERIODLASTYEAR
```
1  SAMEPERIODLASTYEAR = CALCULATE([Ventas], SAMEPERIODLASTYEAR(Calendario[Fecha]))
```

SAMEPERIODLASTYEAR/DATESYTD
```
1  SAMEPERIODLASTYEAR/DATESYTD = CALCULATE([Ventas],SAMEPERIODLASTYEAR(DATESYTD(Calendario[Fecha])))
```

DATEADD
```
1  DATEADD = CALCULATE([Ventas],DATEADD(Calendario[Fecha], -1, YEAR))
```

PREVIOUSYEAR
```
1  PREVIOUSYEAR = CALCULATE([Ventas], PREVIOUSYEAR(Calendario[Fecha]))
```

PARARELLPERIOD/YEAR
```
1  PARALLELPERIOD = CALCULATE([Ventas],PARALLELPERIOD(Calendario[Fecha],-1,YEAR))
```

NEXTYEAR
```
1  NEXTYEAR = CALCULATE([Ventas],NEXTYEAR(Calendario[Fecha]))
```

Año	Ventas	SAMEPERIODLASTYEAR	SAMEPERIODLASTYEAR/DATESYTD	DATEADD	PREVIOUSYEAR	PARALLELPERIOD	NEXTYEAR
2018	$61.369.274						62.141.820,26
Enero	$4.978.046						62.141.820,26
Febrero	$4.750.588						62.141.820,26
Marzo	$5.370.954						62.141.820,26
Abril	$5.478.805						62.141.820,26
Mayo	$5.353.376						62.141.820,26
Junio	$5.105.916						62.141.820,26
Julio	$5.578.193						62.141.820,26
Agosto	$4.752.055						62.141.820,26
Septiembre	$5.031.588						62.141.820,26
Octubre	$5.172.857						62.141.820,26
Noviembre	$4.845.255						62.141.820,26
Diciembre	$4.951.642						62.141.820,26
2019	$62.141.820	61.369.273,84	61.369.273,84	61.369.273,84	61.369.273,84	61.369.273,84	
Enero	$5.186.089	4.978.045,60	4.978.045,60	4.978.045,60	61.369.273,84	61.369.273,84	
Febrero	$4.260.548	4.750.587,96	9.728.633,55	4.750.587,96	61.369.273,84	61.369.273,84	
Marzo	$5.769.164	5.370.954,02	15.099.587,57	5.370.954,02	61.369.273,84	61.369.273,84	
Abril	$6.302.136	5.478.804,76	20.578.392,33	5.478.804,76	61.369.273,84	61.369.273,84	
Mayo	$5.457.276	5.353.375,70	25.931.768,03	5.353.375,70	61.369.273,84	61.369.273,84	
Junio	$4.881.729	5.105.915,93	31.037.683,96	5.105.915,93	61.369.273,84	61.369.273,84	
Julio	$5.917.724	5.578.193,39	36.615.877,35	5.578.193,39	61.369.273,84	61.369.273,84	
Agosto	$4.793.829	4.752.054,84	41.367.932,19	4.752.054,84	61.369.273,84	61.369.273,84	
Septiembre	$5.035.807	5.031.587,99	46.399.520,18	5.031.587,99	61.369.273,84	61.369.273,84	
Octubre	$5.243.201	5.172.856,63	51.572.376,81	5.172.856,63	61.369.273,84	61.369.273,84	
Noviembre	$4.816.102	4.845.254,87	56.417.631,67	4.845.254,87	61.369.273,84	61.369.273,84	
Diciembre	$4.478.214	4.951.642,17	61.369.273,84	4.951.642,17	61.369.273,84	61.369.273,84	
2020		62.141.820,26	62.141.820,26	62.141.820,26	62.141.820,26	62.141.820,26	
Enero		5.186.088,67	5.186.088,67	5.186.088,67	62.141.820,26	62.141.820,26	
Febrero		4.260.548,39	9.446.637,05	4.260.548,39	62.141.820,26	62.141.820,26	
Marzo		5.769.164,25	15.215.801,30	5.769.164,25	62.141.820,26	62.141.820,26	
Abril		6.302.136,29	21.517.937,59	6.302.136,29	62.141.820,26	62.141.820,26	
Mayo		5.457.276,10	26.975.213,69	5.457.276,10	62.141.820,26	62.141.820,26	
Junio		4.881.728,79	31.856.942,48	4.881.728,79	62.141.820,26	62.141.820,26	
Julio		5.917.724,44	37.774.666,92	5.917.724,44	62.141.820,26	62.141.820,26	
Agosto		4.793.828,87	42.568.495,79	4.793.828,87	62.141.820,26	62.141.820,26	
Total	$123.511.094	123.511.094,10		123.511.094,10		123.511.094,10	

```
1  Ventas = SUM(Sales[Venta])
```

DATESYTD
```
1  DATESYTD = CALCULATE([Ventas], DATESYTD(Calendario[Fecha]))
```
TOTALYTD
```
1  TOTALYTD = TOTALYTD([Ventas],Calendario[Fecha])
```
PREVIOUSMONTH
```
1  PREVIOUSMONTH = CALCULATE([Ventas], PREVIOUSMONTH(Calendario[Fecha]))
```
DATEADD/MONTH
```
1  DATEADD/MONTH = CALCULATE([Ventas], DATEADD(Calendario[Fecha],-1,MONTH))
```
PARALLELPERIOD/MONTH
```
1  PARALLELPERIOD/MONTH = CALCULATE([Ventas],PARALLELPERIOD(Calendario[Fecha],-1,MONTH))
```
NEXTMONTH
```
1  NEXTMONTH = CALCULATE([Ventas],NEXTMONTH(Calendario[Fecha]))
```

Año	Ventas	DATESYTD	TOTALYTD	PREVIOUSMONTH	DATEADD/MONTH	PARALLELPERIOD/MONTH	NEXTMONTH
2018	$61.369.274	61.369.273,84	61.369.273,84		56.417.631,67	56.417.631,67	5.186.088,67
Enero	$4.978.046	4.978.045,60	4.978.045,60				4.750.587,96
Febrero	$4.750.588	9.728.633,55	9.728.633,55	4.978.045,60	4.978.045,60	4.978.045,60	5.370.954,02
Marzo	$5.370.954	15.099.587,57	15.099.587,57	4.750.587,96	4.750.587,96	4.750.587,96	5.478.804,76
Abril	$5.478.805	20.578.392,33	20.578.392,33	5.370.954,02	5.370.954,02	5.370.954,02	5.353.375,70
Mayo	$5.353.376	25.931.768,03	25.931.768,03	5.478.804,76	5.478.804,76	5.478.804,76	5.105.915,93
Junio	$5.105.916	31.037.683,96	31.037.683,96	5.353.375,70	5.353.375,70	5.353.375,70	5.578.193,39
Julio	$5.578.193	36.615.877,35	36.615.877,35	5.105.915,93	5.105.915,93	5.105.915,93	4.752.054,84
Agosto	$4.752.055	41.367.932,19	41.367.932,19	5.578.193,39	5.578.193,39	5.578.193,39	5.031.587,99
Septiembre	$5.031.588	46.399.520,18	46.399.520,18	4.752.054,84	4.752.054,84	4.752.054,84	5.172.856,63
Octubre	$5.172.857	51.572.376,81	51.572.376,81	5.031.587,99	5.031.587,99	5.031.587,99	4.845.254,87
Noviembre	$4.845.255	56.417.631,67	56.417.631,67	5.172.856,63	5.172.856,63	5.172.856,63	4.951.642,17
Diciembre	$4.951.642	61.369.273,84	61.369.273,84	4.845.254,87	4.845.254,87	4.845.254,87	5.186.088,67
2019	$62.141.820	62.141.820,26	62.141.820,26	4.951.642,17	62.615.248,59	62.615.248,59	
Enero	$5.186.089	5.186.088,67	5.186.088,67	4.951.642,17	4.951.642,17	4.951.642,17	4.260.548,39
Febrero	$4.260.548	9.446.637,05	9.446.637,05	5.186.088,67	5.186.088,67	5.186.088,67	5.769.164,25
Marzo	$5.769.164	15.215.801,30	15.215.801,30	4.260.548,39	4.260.548,39	4.260.548,39	6.302.136,29
Abril	$6.302.136	21.517.937,59	21.517.937,59	5.769.164,25	5.769.164,25	5.769.164,25	5.457.276,10
Mayo	$5.457.276	26.975.213,69	26.975.213,69	6.302.136,29	6.302.136,29	6.302.136,29	4.881.728,79
Junio	$4.881.729	31.856.942,48	31.856.942,48	5.457.276,10	5.457.276,10	5.457.276,10	5.917.724,44
Julio	$5.917.724	37.774.666,92	37.774.666,92	4.881.728,79	4.881.728,79	4.881.728,79	4.793.828,87
Agosto	$4.793.829	42.568.495,79	42.568.495,79	5.917.724,44	5.917.724,44	5.917.724,44	5.035.807,02
Septiembre	$5.035.807	47.604.302,81	47.604.302,81	4.793.828,87	4.793.828,87	4.793.828,87	5.243.201,27
Octubre	$5.243.201	52.847.504,08	52.847.504,08	5.035.807,02	5.035.807,02	5.035.807,02	4.816.102,34
Noviembre	$4.816.102	57.663.606,42	57.663.606,42	5.243.201,27	5.243.201,27	5.243.201,27	4.478.213,84
Diciembre	$4.478.214	62.141.820,26	62.141.820,26	4.816.102,34	4.816.102,34	4.816.102,34	
2020				4.478.213,84	4.478.213,84	4.478.213,84	
Enero				4.478.213,84	4.478.213,84	4.478.213,84	
Total	$123.511.094				123.511.094,10	123.511.094,10	

DATEDIFF

```
1  DATEDIFF = DATEDIFF(
        DATEDIFF(Fecha1, Fecha2, Intervalo)
        Devuelve el número de unidades (unidad especificada en Intervalo) entre las dos
        fechas de entrada.
```

En una medida no podemos utilizar un campo de una tabla

```
1  DATEDIFF = DATEDIFF(TODAY(),DATE(2021,09,15),DAY)
```

9
DATEDIFF

Esta función la podemos utilizar en una columna de tabla, en donde si podemos utilizar campos de la tabla:

```
1  Diferencia = DATEDIFF(Budget[Date],DATE(2021,09,06),DAY)
```

Seller ID	Customer ID	Date	Budget	Llave Primaria	Diferencia
127	164	01-01-2018	5434	127 - 164 - 2018-01-01	1344
127	165	01-01-2018	5812	127 - 165 - 2018-01-01	1344
127	177	01-01-2018	2179	127 - 177 - 2018-01-01	1344
127	181	01-01-2018	1982	127 - 181 - 2018-01-01	1344
127	189	01-01-2018	10839	127 - 189 - 2018-01-01	1344
127	203	01-01-2018	26142	127 - 203 - 2018-01-01	1344
127	205	01-01-2018	956	127 - 205 - 2018-01-01	1344
127	215	01-01-2018	20467	127 - 215 - 2018-01-01	1344
127	237	01-01-2018	4015	127 - 237 - 2018-01-01	1344
127	238	01-01-2018	6349	127 - 238 - 2018-01-01	1344
127	243	01-01-2018	14149	127 - 243 - 2018-01-01	1344
127	254	01-01-2018	3561	127 - 254 - 2018-01-01	1344
127	268	01-01-2018	10042	127 - 268 - 2018-01-01	1344
127	277	01-01-2018	13456	127 - 277 - 2018-01-01	1344
127	279	01-01-2018	3183	127 - 279 - 2018-01-01	1344
127	288	01-01-2018	13100	127 - 288 - 2018-01-01	1344
127	294	01-01-2018	515	127 - 294 - 2018-01-01	1344

STARTOFMONTH `1  STARTOFMONTH = STARTOFMONTH(Calendario[Fecha])`

ENDOFMONTH `1  ENDOFMONTH = ENDOFMONTH(Calendario[Fecha])`

STARTOFQUARTER `1  STARTOFQUARTER = STARTOFQUARTER(Calendario[Fecha])`

ENDOFQUARTER `1  ENDOFQUARTER = ENDOFQUARTER(Calendario[Fecha])`

STARTOFYEAR `1  STARTOFYEAR = STARTOFYEAR(Calendario[Fecha])`

ENDOFYEAR `1  ENDOFYEAR = ENDOFYEAR(Calendario[Fecha])`

STARTOFYEAR/PREVIOUSYEAR

`1  STARTOFYEAR/PREVIOUSYEAR = STARTOFYEAR(PREVIOUSYEAR(Calendario[Fecha]))`

LASTYEAR `1  LASTDATE = LASTDATE(Sales[Sale Date])`

Año	Ventas	STARTOFMONTH	ENDOFMONTH	STARTOFQUARTER	ENDOFQUARTER	STARTOFYEAR	ENDOFYEAR	STARTOFYEAR/PREVIOUSYEAR	LASTDATE
2018	**$61.369.274**	**01-01-2018**	**31-12-2018**	**01-01-2018**	**31-12-2018**	**01-01-2018**	**31-12-2018**		**31-12-2018**
Enero	$4.978.046	01-01-2018	31-01-2018	01-01-2018	31-03-2018	01-01-2018	31-12-2018		31-01-2018
Febrero	$4.750.588	01-02-2018	28-02-2018	01-01-2018	31-03-2018	01-01-2018	31-12-2018		28-02-2018
Marzo	$5.370.954	01-03-2018	31-03-2018	01-01-2018	31-03-2018	01-01-2018	31-12-2018		31-03-2018
Abril	$5.478.805	01-04-2018	30-04-2018	01-04-2018	30-06-2018	01-01-2018	31-12-2018		30-04-2018
Mayo	$5.353.376	01-05-2018	31-05-2018	01-04-2018	30-06-2018	01-01-2018	31-12-2018		31-05-2018
Junio	$5.105.916	01-06-2018	30-06-2018	01-04-2018	30-06-2018	01-01-2018	31-12-2018		30-06-2018
Julio	$5.578.193	01-07-2018	31-07-2018	01-07-2018	30-09-2018	01-01-2018	31-12-2018		31-07-2018
Agosto	$4.752.055	01-08-2018	31-08-2018	01-07-2018	30-09-2018	01-01-2018	31-12-2018		31-08-2018
Septiembre	$5.031.588	01-09-2018	30-09-2018	01-07-2018	30-09-2018	01-01-2018	31-12-2018		29-09-2018
Octubre	$5.172.857	01-10-2018	31-10-2018	01-10-2018	31-12-2018	01-01-2018	31-12-2018		31-10-2018
Noviembre	$4.845.255	01-11-2018	30-11-2018	01-10-2018	31-12-2018	01-01-2018	31-12-2018		30-11-2018
Diciembre	$4.951.642	01-12-2018	31-12-2018	01-10-2018	31-12-2018	01-01-2018	31-12-2018		31-12-2018
2019	**$62.141.820**	**01-01-2019**	**31-12-2019**	**01-01-2019**	**31-12-2019**	**01-01-2019**	**31-12-2019**	**01-01-2018**	**30-12-2019**
Enero	$5.186.089	01-01-2019	31-01-2019	01-01-2019	31-03-2019	01-01-2019	31-12-2019	01-01-2018	31-01-2019
Febrero	$4.260.548	01-02-2019	28-02-2019	01-01-2019	31-03-2019	01-01-2019	31-12-2019	01-01-2018	28-02-2019
Marzo	$5.769.164	01-03-2019	31-03-2019	01-01-2019	31-03-2019	01-01-2019	31-12-2019	01-01-2018	30-03-2019
Abril	$6.302.136	01-04-2019	30-04-2019	01-04-2019	30-06-2019	01-01-2019	31-12-2019	01-01-2018	30-04-2019
Mayo	$5.457.276	01-05-2019	31-05-2019	01-04-2019	30-06-2019	01-01-2019	31-12-2019	01-01-2018	31-05-2019
Junio	$4.881.729	01-06-2019	30-06-2019	01-04-2019	30-06-2019	01-01-2019	31-12-2019	01-01-2018	29-06-2019
Julio	$5.917.724	01-07-2019	31-07-2019	01-07-2019	30-09-2019	01-01-2019	31-12-2019	01-01-2018	31-07-2019
Agosto	$4.793.829	01-08-2019	31-08-2019	01-07-2019	30-09-2019	01-01-2019	31-12-2019	01-01-2018	31-08-2019
Septiembre	$5.035.807	01-09-2019	30-09-2019	01-07-2019	30-09-2019	01-01-2019	31-12-2019	01-01-2018	30-09-2019
Octubre	$5.243.201	01-10-2019	31-10-2019	01-10-2019	31-12-2019	01-01-2019	31-12-2019	01-01-2018	31-10-2019
Noviembre	$4.816.102	01-11-2019	30-11-2019	01-10-2019	31-12-2019	01-01-2019	31-12-2019	01-01-2018	30-11-2019
Diciembre	$4.478.214	01-12-2019	31-12-2019	01-10-2019	31-12-2019	01-01-2019	31-12-2019	01-01-2018	30-12-2019
2020		**01-01-2020**	**31-12-2020**	**01-01-2020**	**31-12-2020**	**01-01-2020**	**31-12-2020**	**01-01-2019**	
Enero		01-01-2020	31-01-2020	01-01-2020	31-03-2020	01-01-2020	31-12-2020	01-01-2019	
Febrero		01-02-2020	29-02-2020	01-01-2020	31-03-2020	01-01-2020	31-12-2020	01-01-2019	
Marzo		01-03-2020	31-03-2020	01-01-2020	31-03-2020	01-01-2020	31-12-2020	01-01-2019	
Abril		01-04-2020	30-04-2020	01-04-2020	30-06-2020	01-01-2020	31-12-2020	01-01-2019	
Mayo		01-05-2020	31-05-2020	01-04-2020	30-06-2020	01-01-2020	31-12-2020	01-01-2019	
Junio		01-06-2020	30-06-2020	01-04-2020	30-06-2020	01-01-2020	31-12-2020	01-01-2019	
Total	**$123.511.094**	**01-01-2018**	**23-06-2023**	**01-01-2018**	**23-06-2023**	**01-01-2018**	**23-06-2023**		**30-12-2019**

DATESBETWEEN

Devuelve una **TABLA**

```
1  DATESBETWEEN = DATESBETWEEN(
        DATESBETWEEN(Dates, StartDate, EndDate)
        Devuelve las fechas entre dos fechas dadas.
```

```
1  DATESBETWEEN = DATESBETWEEN(Calendario[Fecha],[STARTOFYEAR/PREVIOUSYEAR],[LASTDATE])
```

Fecha
01-01-2018 0:00:00
02-01-2018 0:00:00
03-01-2018 0:00:00
04-01-2018 0:00:00
05-01-2018 0:00:00
06-01-2018 0:00:00
07-01-2018 0:00:00
08-01-2018 0:00:00
09-01-2018 0:00:00
10-01-2018 0:00:00
11-01-2018 0:00:00
12-01-2018 0:00:00
13-01-2018 0:00:00
14-01-2018 0:00:00
15-01-2018 0:00:00
16-01-2018 0:00:00
17-01-2018 0:00:00
18-01-2018 0:00:00
19-01-2018 0:00:00
20-01-2018 0:00:00
21-01-2018 0:00:00
22-01-2018 0:00:00
23-01-2018 0:00:00
24-01-2018 0:00:00
25-01-2018 0:00:00
26-01-2018 0:00:00

Tabla: DATESBETWEEN (364 filas)

% Crecimiento de Ventas

```
1  Ventas = SUM(Sales[Venta])
```

```
1  SAMEPERIODLASTYEAR = CALCULATE([Ventas], SAMEPERIODLASTYEAR(Calendario[Fecha]))
```

```
1  DATEADD = CALCULATE([Ventas],DATEADD(Calendario[Fecha], -1, YEAR))
```

```
1  % Crecimiento de ventas = DIVIDE([Ventas]-[SAMEPERIODLASTYEAR],[SAMEPERIODLASTYEAR])
```

```
1  % Crecimiento de ventas 2 = DIVIDE([Ventas]-[DATEADD],[DATEADD])
```

Año	Ventas	SAMEPERIODLASTYEAR	DATEADD	% Crecimiento de ventas	% Crecimiento de ventas 2
2018	61.369.273,84				
Enero	4.978.045,60				
Febrero	4.750.587,96				
Marzo	5.370.954,02				
Abril	5.478.804,76				
Mayo	5.353.375,70				
Junio	5.105.915,94				
Julio	5.578.193,39				
Agosto	4.752.054,84				
Septiembre	5.031.587,99				
Octubre	5.172.856,63				
Noviembre	4.845.254,87				
Diciembre	4.951.642,17				
2019	62.141.820,26	61.369.273,84	61.369.273,84	1,26 %	1,26 %
Enero	5.186.088,67	4.978.045,60	4.978.045,60	4,18 %	4,18 %
Febrero	4.260.548,39	4.750.587,96	4.750.587,96	-10,32 %	-10,32 %
Marzo	5.769.164,25	5.370.954,02	5.370.954,02	7,41 %	7,41 %
Abril	6.302.136,29	5.478.804,76	5.478.804,76	15,03 %	15,03 %
Mayo	5.457.276,10	5.353.375,70	5.353.375,70	1,94 %	1,94 %
Junio	4.881.728,79	5.105.915,93	5.105.915,93	-4,39 %	-4,39 %
Julio	5.917.724,44	5.578.193,39	5.578.193,39	6,09 %	6,09 %
Agosto	4.793.828,87	4.752.054,84	4.752.054,84	0,88 %	0,88 %
Septiembre	5.035.807,02	5.031.587,99	5.031.587,99	0,08 %	0,08 %
Octubre	5.243.201,27	5.172.856,63	5.172.856,63	1,36 %	1,36 %
Noviembre	4.816.102,34	4.845.254,87	4.845.254,87	-0,60 %	-0,60 %
Diciembre	4.478.213,84	4.951.642,17	4.951.642,17	-9,56 %	-9,56 %
2020		62.141.820,26	62.141.820,26	-100,00 %	-100,00 %
Enero		5.186.088,67	5.186.088,67	-100,00 %	-100,00 %
Febrero		4.260.548,39	4.260.548,39	-100,00 %	-100,00 %
Marzo		5.769.164,25	5.769.164,25	-100,00 %	-100,00 %
Abril		6.302.136,29	6.302.136,29	-100,00 %	-100,00 %
Mayo		5.457.276,10	5.457.276,10	-100,00 %	-100,00 %
Junio		4.881.728,79	4.881.728,79	-100,00 %	-100,00 %
Julio		5.917.724,44	5.917.724,44	-100,00 %	-100,00 %
Total	123.511.094,10	123.511.094,10	123.511.094,10	-0,00 %	-0,00 %