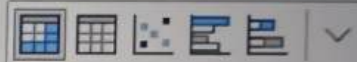


CategoryName	Order Quantity	Quantity Returned	Average Retail Price
Accessories	57.809	1130	\$34.2562
Bikes	13.929	429	\$1,541.3835
Clothing	12.436	269	\$50.6811
Components			\$432.187
	<b>84,174</b>	<b>1828</b>	<b>\$714.4374</b>

## Build a visual



☐ Off Suggest a type

Rows

CategoryName X | >

SubcategoryN... X | >

+Add data

Columns

+Add data

Values

Order Quantity X | >

Total Returns

\$% Format Whole number

ble Measure Table

\$ % , .00

0

Structure

Formatting



```

1 Total Returns =
2 COUNT(
3     'Returns Data'[ReturnQuantity]
4 )
    
```

CategoryName	Quantity Sold	Quantity
<b>Accessories</b>		<b>57,809</b>
Bike Racks		302
Bike Stands		234
Bottles and Cages		15,106
Cleaners		1,706
Fenders		3,960
Helmets		6,034
Hydration Packs		695
Lights		
Locks		
Panniers		
Pumps		
Tires and Tubes		29,772
<b>Bikes</b>		<b>13,929</b>
<b>Total</b>		<b>84,174</b>

Price

2562

\$120

\$159

\$7.99

\$7.95

21.98

1.0928

\$54.99

3233

\$25

\$125

\$22.49

9.4827

1.3835

4.4374

Build a visual

CategoryName

×

|

>

SubcategoryN...

×

|

>

+Add data

Columns

+Add data

Values

Quantity Sold

×

|

>

Quantity Retur...

×

|

>

Total Returns

×

|

>

Average Retail ...

×

|

>

CategoryName	Quantity Sold	Quantity Returned	Total Returns	Average Retail Price
<b>Accessories</b>	<b>57,809</b>	<b>1,130</b>	<b>1,115</b>	<b>\$34.2562</b>
Racks	302	8	8	\$120
Stands	234	8	8	\$159
Bottles and Cages	15,106	288	278	\$7.99
Cleaners	1,706	25	25	\$7.95
Fenders	3,960	54	54	\$21.98
Helmets	6,034	188	188	\$34.0928
Hydration Packs	695	25	25	\$54.99
Lights				\$31.3233
Locks				\$25
Panniers				\$125
Pumps				\$22.49
Tires and Tubes	29,772	534	529	\$19.4827
<b>Bikes</b>	<b>13,929</b>	<b>429</b>	<b>427</b>	<b>\$1,541.3835</b>
<b>Total</b>	<b>84,174</b>	<b>1,828</b>	<b>1,809</b>	<b>\$714.4374</b>

Build

Category

Subcategory

Columns

Values

Quantity

Quantity

Total Returns

Average



Home

Insert

Modeling

View

Optimize

Help

Quantity Sold

\$% Format Whole number

table Measure Table

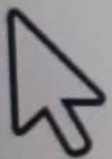
\$ % , .00

0

Structure

Formatting

```
1 Quantity Sold =  
2 SUM(  
3     'Sales Data'[OrderQuantity]  
4 )
```



CategoryName	Quantity Sold	Quantity Returned
<input type="checkbox"/> Accessories	57,809	1130
<input type="checkbox"/> Bikes	13,929	429
<input type="checkbox"/> Clothing	12,436	269
<input type="checkbox"/> Components		
<b>Total</b>	<b>84,174</b>	<b>1828</b>

Total Orders

\$% Format Whole number

Measure Table

\$ % , .00

0

Structure

Formatting

```
1 Total Orders =  
2 DISTINCTCOUNT(  
3 | 'Sales Data'[OrderNumber]  
4 )
```

CategoryName	Quantity Sold	Quar
Accessories	57,809	
Bikes	13,929	
Clothing	12,436	
Components		
<b>Total</b>	<b>84,174</b>	

CategoryName	Quantity Sold	Total Orders	Quantity Returned	Total Returns	Average Retail Price
Accessories	57,809	16,983	1130	1,115	\$34.2562
Bikes	13,929	13,929	429	427	\$1,541.3835
Clothing	12,436	6,976	269	267	\$50.6811
Components					\$432.187
<b>Total</b>	<b>84,174</b>	<b>25,164</b>	<b>1828</b>	<b>1,809</b>	<b>\$714.4374</b>

## Build a visual

SubcategoryN... X | >

+Add data

### Columns

+Add data

### Values

Quantity Sold X | >

Total Orders X | >

Quantity Retur... X | >

Total Returns X | >

Average Retail ... X | >



## NEW MESSAGE

From: **Dianne A. Xu** (*Senior Analyst*)

Subject: **Help with a few measures**

Hey there, excited to start working with you!

I'll need to pull some high-level metrics from our model to share with leadership, and I could use some help with the calculations.

For now, could you please create one measure to calculate the total number of distinct customers, and a second measure that we can use to calculate return rate (quantity returned / quantity sold)? Thank you!

-Dianne

Reply

Forward



---

## ***Key Objectives***

---

1. Create a measure named **Total Customers**, to calculate the number of distinct AdventureWorks customers who made a transaction
2. Create a measure named **Return Rate**, defined as quantity returned divided by quantity sold



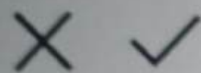
## Solution Preview

```
1 Total Customers =  
2 DISTINCTCOUNT(  
3     'Sales Data'[Customer Key]  
4 )
```

```
1 Return Rate =  
2 DIVIDE(  
3     [Quantity Returned],  
4     [Quantity Sold],  
5     "No Sales"  
6 )
```

Structure

Formatting



```
1 Total Customers =  
2 DISTINCTCOUNT(  
3 | 'Sales Data'[CustomerKey]  
4 )
```

CategoryName	Quantity Sold	Total Orders	Q
<input type="checkbox"/> Accessories	57,809	16,983	
<input type="checkbox"/> Bikes	13,929	13,929	
<input type="checkbox"/> Clothing	12,436	6,976	
<input type="checkbox"/> Components			
<b>Total</b>	<b>84,174</b>	<b>25,164</b>	

CategoryName	Total Orders	Quantity Returned	Total Returns	Total Customers
Accessories	16,983	1130	1,115	14,287
Bikes	13,929	429	427	8,793
Clothing	6,976	269	267	6,452
<b>Total</b>	<b>25,164</b>	<b>1828</b>	<b>1,809</b>	<b>17,416</b>

## Build a visual

CategoryName X | >

SubcategoryN... X | >

+Add data

## Columns

+Add data

## Values

Total Orders X | >

Quantity Retur... X | >

Total Returns X | >

Total Customers X | >



Return Rate

Measure Table

\$%

Format

Percentage

\$

%

,

→.00

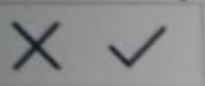
2

Data category

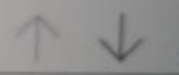
Structure

Formatting

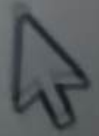
Pro



1 Return Rate =  
2 [Quantity Returned] / [Quantity sold]



CategoryName	Total Orders	Quantity Returned	Total Returns	Total Customer
Accessories	16,983	1130	1,115	14
Bikes	13,929	429	427	8
Clothing	6,976	269	267	6
<b>Total</b>	<b>25,164</b>	<b>1828</b>	<b>1,809</b>	<b>17,4</b>



Returned] / [Quantity Sold]



CategoryName	Total Orders	Quantity Returned	Total Returns	Total Customers	Return Rate
Accessories	16,983	1130	1,115	14,287	1.95%
Bikes	13,929	429	427	8,793	3.08%
Clothing	6,976	269	267	6,452	2.16%
<b>Total</b>	<b>25,164</b>	<b>1828</b>	<b>1,809</b>	<b>17,416</b>	<b>2.17%</b>

Structure

Formatting



```
1 Return Rate =  
2 DIVIDE(  
3     [Quantity Returned],  
4     [Quantity Sold],  
5     "No Sales"  
6 )
```

CategoryName	Total Orders	Qu
--------------	--------------	----

Accessories	16,983	
-------------	--------	--

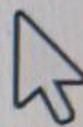
Bikes	13,929	
-------	--------	--

Clothing	6,976	
----------	-------	--

<b>Total</b>	<b>25,164</b>	
--------------	---------------	--

d],

CategoryName	Total Orders	Quantity Returned	Total Returns	Total Customers	Return Rate
Accessories	16,983	1130	1,115	14,287	1.95%
Bikes	13,929	429	427	8,793	3.08%
Clothing	6,976	269	267	6,452	2.16%
<b>Total</b>	<b>25,164</b>	<b>1828</b>	<b>1,809</b>	<b>17,416</b>	<b>2.17%</b>





# BASIC LOGICAL FUNCTIONS

## IF

Checks if a given condition is met and returns one value if the condition is TRUE, and another if the condition is FALSE

=**IF**(LogicalTest, ResultIfTrue, *[ResultIfFalse]*)

## IFERROR

Evaluates an expression and returns a specified value if it returns an error, otherwise returns the expression itself

=**IFERROR**(Value, ValueIfError)

## SWITCH

Evaluates an expression against a list of values and returns one of multiple possible expressions

=**SWITCH**(Expression, Value1, Result1, ..., *[Else]*)

## AND

Checks whether both arguments are TRUE to return TRUE, otherwise returns FALSE

=**AND**(Logical1, Logical2)

**Note:** Use the **&&** and **||** operators to include more than two conditions

## OR

Checks whether any argument is TRUE to return TRUE, otherwise returns FALSE

=**OR**(Logical1, Logical2)

al2)


l2)


**Note:** Use the **&&** and **||** operators to include more than two conditions


TotalChildren ...	EducationLevel	Occupation	HomeOwner	Full Name
000	0 Bachelors	Professional	N	Mr. Shannon
000	0 Bachelors	Professional	N	Mr. Jessie Liu
000	0 Bachelors	Professional	N	Mr. Ruben Ka
000	0 Bachelors	Professional	N	Mr. Ruben M
000	0 Bachelors	Professional	N	Mr. Joe Rana
000	0 Bachelors	Professional	N	Mr. Jarrod Su
000	0 Bachelors	Professional	N	Mr. Dustin Gr
000	0 Bachelors	Professional	N	Mr. Clayton J
000	0 Bachelors	Professional	N	Mr. Irving Sch
000	0 Bachelors	Professional	N	Mr. Alan Hua
000	0 Bachelors	Professional	N	Mr. Brendan
0000	0 Bachelors	Professional	N	Mr. Gregory
0000	0 Bachelors	Professional	N	Mr. Marco Ve
0000	0 Bachelors	Professional	N	Mr. Alejandro
0000	0 Bachelors	Professional	N	Mr. Shane Fe
0000	0 Bachelors	Professional	N	Mr. Jay Rame
0000	0 Bachelors	Professional	N	Mr. Damien Y
0000	0 Bachelors	Professional	N	Mr. Roy Mart
0000	0 Bachelors	Professional	N	Mr. Pedro Ra
0000	0 Bachelors	Professional	N	Mr. Eugene L
0000	0 Bachelors	Professional	N	Mr. Johnny A
0000	0 Bachelors	Professional	N	Mr. Edwin Zh


## Data


 Search


>  Measure Table

>  Calendar Lookup


>  Customer Lookup


>  Product Categories Lookup

>  Product Lookup

>  Product Subcategories Look

>  Returns Data

>  Sales Data

>  Territory Lookup

```
1 Parent =  
2 IF(  
3     'Customer Lookup'[TotalChildren] > 0,  
4     "Yes",  
5     "No"  
6 )
```

	AnnualIncome	TotalChildren	EducationLevel
ature-works.com	70000	0	Bachelors
-works.com	70000	0	Bachelors
e-works.com	70000	0	Bachelors
re-works.com	70000	0	Bachelors
works.com	70000	0	Bachelors
e-works.com	70000	0	Bachelors
re-works.com	70000	0	Bachelors
uro-works.com	70000	0	Bachelors



Level	Occupation	HomeOwner	Full Name	Domain Name	Parent ...
	Professional	N	Mr. Shannon Carlson	Adventure Works	No
	Professional	N	Mr. Jessie Liu	Adventure Works	No
	Professional	N	Mr. Ruben Kapoor	Adventure Works	No
	Professional	N	Mr. Ruben Muñoz	Adventure Works	No
	Professional	N	Mr. Joe Rana	Adventure Works	No
	Professional	N	Mr. Jarrod Suri	Adventure Works	No
	Professional	N	Mr. Dustin Goldstein	Adventure Works	No
	Professional	N	Mr. Clayton Jai	Adventure Works	No
	Professional	N	Mr. Irving Schmidt	Adventure Works	No
	Professional	N	Mr. Alan Huang	Adventure Works	No
	Professional	N	Mr. Brendan Raji	Adventure Works	No
	Professional	N	Mr. Gregory Becker	Adventure Works	No
	Professional	N	Mr. Marco Vance	Adventure Works	No
	Professional	N	Mr. Alejandro Hu	Adventure Works	No
	Professional	N	Mr. Shane Fernandez	Adventure Works	No
	Professional	N	Mr. Jay Raman	Adventure Works	No
	Professional	N	Mr. Damien Ye	Adventure Works	No
	Professional	N	Mr. Roy Martinez	Adventure Works	No

# SWITCH

## SWITCH

Evaluates an expression against a list of values and returns one of multiple possible expressions

=**SWITCH**(Expression, Value1, Result1, ..., [Else])

Any **DAX expression** that returns a single scalar value, evaluated multiples times

*Examples:*

- Calendar[Month ID]
- 'Product Lookup'[category]

List of **values** produced by the expression, each paired with a result to return for rows/cases that match

*Examples:*

```
=SWITCH( Calendar[Month ID],  
1, "January",  
2, "February"
```

Value returned if the expression doesn't match any value argument



### PRO TIP

**SWITCH(TRUE)** is a common DAX pattern to replace multiple nested IF statements



```

1 Month Number (DAX) =
2 IF(
3     'Calendar Lookup'[Month Name] = "January", "1",
4     IF(
5         'Calendar Lookup'[Month Name] = "February", "2",
6         IF(
7             'Calendar Lookup'[Month Name] = "March", "3",
8             "Other"
9         )
10    )
11 )
    
```

ay Name	Start of Week	Start of Month	Start of Quarter	Month N
Wednesday	6/29/2020	7/1/2020	7/1/2020	July
Thursday	6/29/2020	7/1/2020	7/1/2020	July
Friday	6/29/2020	7/1/2020	7/1/2020	July
Saturday	6/29/2020	7/1/2020	7/1/2020	July





```
1 Month Number (DAX) =  
2 SWITCH(  
3     'Calendar Lookup'[Month Name],  
4     "January", "1",  
5     "February", "2",  
6     "March", "3",  
7     "April", "4",  
8     "May", "5",  
9     "June", "6",  
10    "July", "7",  
11    "August", "8",  
12    "September", "9",  
13    "October", "10",  
14    "November", "11",  
15    "December", 12  
16 )
```













! Argument '22' in SWITCH function is required.



```
1 Month Number (DAX) =  
2 SWITCH(  
3     'Calendar Lookup'[Month Name],  
4     "January", "1",  
5     "February", "2",  
6     "March", "3",  
7     "April", "4",  
8     "May", "5",  
9     "June", "6",  
10    "July", "7",  
11    "August", "8",  
12    "September", "9",  
13    "October", "10",  
14    "November", "11",  
15    "December", "12",  
16    "Other"  
17 )
```

: Working on it

 Search

- >  Measure Table
- >  Calendar Lookup
- >  Customer Lookup
- >  Product Categories Lookup
- ✓  Product Lookup
  - $\Sigma$  Discount Price
    - ModelName
    - ProductColor
  - $\Sigma$  ProductCost
    - ProductDescription
  -  ProductKey
    - ProductName
  - $\Sigma$  ProductPrice
    - ProductSKU
    - ProductStyle
    - ProductSubcategoryKey 
    - SKU Type
- >  Product Subcategories Lookup
- >  Returns Data

Column

Whole number

Structure

\$% Format

\$ % , .00

Auto

Formatting

```
1 Price Point =  
2 SWITCH(  
3     'Product Lookup'[ProductPrice],  
4     > 500, "High",  
5     > 100, "Mid-Range",  
6     "Low"  
7 )
```

ProductCo

Black

Black

Black

Black

Black

Black

Black

has a larger diameter tube that absorbs the bumps.  
has a larger

Black



Price Point

\$% Format Text

xt

\$ % , →<sup>00</sup>/<sub>0</sub> Auto

Σ Su

Da

structure

Formatting

```

1 Price Point =
2 SWITCH(
3     TRUE(),
4     'Product Lookup'[ProductPrice] > 500, "High",
5     'Product Lookup'[ProductPrice] > 100, "Mid-Range",
6     "Low"
7 )
    
```

	ProductColor	ProductSt
	Black	NA
	Black	U
	Black	U
	Black	U
	Black	U
	Black	U
	Black	U
larger diameter tube that absorbs the bumps.	Black	U
larger diameter tube that absorbs the bumps.	Black	U
larger diameter tube that absorbs the bumps.	Black	U
larger diameter tube that absorbs the bumps.	Black	U





## NEW MESSAGE

From: **Dianne A. Xu** (*Senior Analyst*)

Subject: **Customer segmentation fields**

Hey there!

Ethan has been working with the DS team on a customer segmentation analysis, and came back to us with a few requests.

Could you please add some new columns in our customer table to identify "priority" customers, segment customers based on income level, and group some of the education categories?

I've attached the logic to use, but reach out with any questions!

-Dianne

## Key Objectives

1. Create a calculated column in the Customer Lookup table named **Customer Priority**:
  - If the customer is a parent and has an annual income > \$100,000, Customer Priority = **Priority**
  - Otherwise, Customer Priority = **Standard**
2. Create a calculated column in the Customer Lookup table named **Income Level**:
  - If annual income is >= \$150,000, **Very High**
  - If annual income is >= \$100,000, **High**
  - If annual income is >= \$50,000, **Average**
  - Otherwise, Income Level = **Low**

---

## *Key Objectives*

---

**BONUS:** Use a SWITCH function\* to create another column named **Education Category**:


- If EducationLevel is High School or Partial High School, Education Category = **High School**
- If EducationLevel is Bachelors or Partial College, Education Category = **Undergrad**
- If EducationLevel is Graduate Degree, Education Category = **Graduate**




## Solution Preview

```
1 Customer Priority =  
2 IF(  
3     'Customer Lookup'[AnnualIncome] > 100000 &&  
4     'Customer Lookup'[Is Parent?] = "Yes",  
5     "Priority",  
6     "Standard"  
7 )
```

```
1 Income Level =  
2 IF('Customer Lookup'[AnnualIncome] >= 150000, "Very High",  
3 IF('Customer Lookup'[AnnualIncome] >= 100000, "High",  
4 IF('Customer Lookup'[AnnualIncome] >= 50000, "Average",  
5 "Low")))
```


```
1 Education Category =  
2 SWITCH('Customer Lookup'[EducationLevel],  
3     "High School", "High School",  
4     "Partial High School", "High School",  
5     "Bachelors", "Undergrad",  
6     "Partial College", "Undergrad",  
7     "Graduate Degree", "Graduate")
```

 Search

- >  Measure Table
- >  Calendar Lookup
- ✓  Customer Lookup

AnnualIncome

BirthDate

 Column CustomerKey

Domain Name

EducationLevel


EmailAddress

FirstName

Full Name

Gender

HomeOwner

 Is Parent ?

LastName

MaritalStatus

Occupation

Prefix



# TEXT FUNCTIONS

## LEN

Returns the number of characters in a string

=**LEN**(Text)

*Note: Use the & operator as a shortcut, or to combine more than two strings*

## CONCATENATE

Joins two text strings into one

=**CONCATENATE**(Text1, Text2)

## UPPER/LOWER

Converts a string to upper or lower case

=**UPPER/LOWER** (Text)

## LEFT/RIGHT/MID

Returns a number of characters from the start/middle/end of a text string

=**LEFT/RIGHT**(Text, [NumChars])  
=**MID**(Text, StartPosition, NumChars)

## SUBSTITUTE

Replaces an instance of existing text with new text in a string

=**SUBSTITUTE**(Text, OldText, NewText, [InstanceNumber])

## SEARCH

Returns the position where a specified string or character is found, reading left to right

=**SEARCH**(FindText, WithinText, [StartPosition], [NotFoundValue])

Customer Full Name...

Format Text

Summarization Don't summarize

Sort by column

re

Formatting

Properties

Sort

Customer Full Name (CC) =

2 'Customer Lookup'[Prefix] & " " & 'Customer Lookup'[FirstName] & " " & 'Customer Lookup'[LastName]

er	Full Name	Domain Name	Is Parent ?	Customer Priority	Income Level	Education Cate
	Mr. Shannon Carlson	Adventure Works	No	Standard	Average	Undergrad
	Mr. Jessie Liu	Adventure Works	No	Standard	Average	Undergrad
	Mr. Ruben Kapoor	Adventure Works	No	Standard	Average	Undergrad
	Mr. Ruben Muñoz	Adventure Works	No	Standard	Average	Undergrad
	Mr. Joe Rana	Adventure Works	No	Standard	Average	Undergrad
	Mr. Jarrod Suri	Adventure Works	No	Standard	Average	Undergrad
	Mr. Dustin Goldstein	Adventure Works	No	Standard	Average	Undergrad
	Mr. Clayton Jai	Adventure Works	No	Standard	Average	Undergrad
	Mr. Irving Schmidt	Adventure Works	No	Standard	Average	Undergrad
	Mr. Alan Huang	Adventure Works	No	Standard	Average	Undergrad
	Mr. Brendan Raji	Adventure Works	No	Standard	Average	Undergrad
	Mr. Gregory Becker	Adventure Works	No	Standard	Average	Undergrad
	Mr. Marco Vance	Adventure Works	No	Standard	Average	Undergrad
	Mr. Alejandro Hu	Adventure Works	No	Standard	Average	Undergrad
	Mr. Shane Fernandez	Adventure Works	No	Standard	Average	Undergrad
	Mr. Jay Raman	Adventure Works	No	Standard	Average	Undergrad
	Mr. David M	Adventure Works	No	Standard	Average	Undergrad

Category	Customer Full Name (CC) ...	Search
	Mr. Shannon Carlson	> Measure Table
	Mr. Jessie Liu	> Calendar Lookup
	Mr. Ruben Kapoor	✓ Customer Lookup
	Mr. Ruben Muñoz	AnnualIncome
	Mr. Joe Rana	BirthDate
	Mr. Jarrod Suri	Customer Full Name (
	Mr. Dustin Goldstein	Customer Priority
	Mr. Clayton Jai	CustomerKey
	Mr. Irving Schmidt	Domain Name
	Mr. Alan Huang	Education Category
	Mr. Brendan Raji	EducationLevel
	Mr. Gregory Becker	EmailAddress
	Mr. Marco Vance	FirstName
	Mr. Alejandro Hu	Full Name
	Mr. Shane Fernandez	Gender
	Mr. Jay Raman	HomeOwner
	Mr. Damien Ye	Income Level
	Mr. Roy Martinez	Is Parent ?
	Mr. Pedro Rana	LastName
	Mr. Eugene Liang	
	Mr. Johnny Anand	
	Mr. Edwin Zheng	



column

\$% Format

whole number

\$ % , 00 0

Auto

structure

Formatting

```
1 Month Short =  
2 LEFT(  
3     'Calendar Lookup'[Month Name],  
4     3  
5 )
```

me	Start of Week	Start of Month	Start of Quart
day	6/29/2020	7/1/2020	7/1/
y	6/29/2020	7/1/2020	7/1/
	6/29/2020	7/1/2020	7/1/
y	6/29/2020	7/1/2020	7/1/
	6/29/2020	7/1/2020	7/1/2
y	7/6/2020	7/1/2020	7/1/2
y	7/6/2020	7/1/2020	7/1/2
sday	7/6/2020	7/1/2020	7/1/2
ay	7/6/2020	7/1/2020	7/1/20
	7/6/2020	7/1/2020	7/1/20
ay	7/6/2020	7/1/2020	7/1/20
/	7/6/2020	7/1/2020	7/1/20



## NEW MESSAGE

From: **Dianne A. Xu** (*Senior Analyst*)

Subject: **Couple random requests**

Good morning!

Hoping you can help with a couple quick updates to the model:

- 1) Ethan wants to make the month abbreviations ALL CAPS to make them more readable in our reports.
- 2) The product team asked us to break out the SKU category into its own field, which we can define as any characters before the first hyphen ("-") in the ProductSKU column.

Thanks, reach out with any questions!

← Reply

➡ Forward



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## ***Key Objectives***

---

1. Update the **Month Short** column in the Calendar Lookup table to extract and capitalize the first 3 characters of the month name
2. Create a new column in the Product Lookup table named **SKU Category**, to return any number of characters before the first hyphen in the ProductSKU column

# Solution Preview

1 Month Short =

2 UPPER(

3     LEFT(

4         'Calendar Lookup'[Month Name],

5         3

6     )

7 )

1 SKU Category =

2 LEFT(

3     'Product Lookup'[Product SKU],

4     SEARCH(

5         "- ",

6         'Product Lookup'[Product SKU]

7     )

8     -1

9 )

# BASIC DATE & TIME FUNCTIONS

**TODAY/NOW**

Returns the current date or exact time

=**TODAY/NOW**()

**DAY/MONTH/YEAR**

Returns the day of the month (1-31), month of the year (1-12), or year of a given date

=**DAY/MONTH/YEAR**(Date)

**HOUR/MINUTE/  
SECOND**

Returns the hour (0-23), minute (0-59), or second (0-59) of a given datetime value

=**HOUR/MINUTE/SECOND**(Datetime)

**WEEKDAY/  
WEEKNUM**

Returns a weekday number from 1 (Sunday) to 7 (Saturday), or the week # of the year

=**WEEKDAY/WEEKNUM**(Date, [ReturnType])

**EOMONTH**

Returns the date of the last day of the month, +/- a specified number of months

=**EOMONTH**(StartDate, Months)

**DATEDIFF**

Returns the difference between two dates, based on a given interval (day, hour, year, etc.)

=**DATEDIFF**(Date1, Date2, Interval)

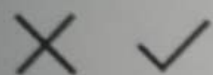
ta type Whole number

\$ % , .00

0

Structure

Formatting



```
1 Day of Week =  
2 WEEKDAY(  
3 | 'Calendar Lookup'[Date]  
4 )
```

Day of Week	Start of Month	Start of Quarter	Month Name	M
6/29/2020	7/1/2020	7/1/2020	July	
6/29/2020	7/1/2020	7/1/2020	July	
6/29/2020	7/1/2020	7/1/2020	July	
6/29/2020	7/1/2020	7/1/2020	July	
6/29/2020	7/1/2020	7/1/2020	July	
7/6/2020	7/1/2020	7/1/2020	July	
7/6/2020	7/1/2020	7/1/2020	July	
7/6/2020	7/1/2020	7/1/2020	July	

Working



File Home Help External tools Table tools Column tools

Name Day of Week 5% Format Whole number Summarization Sum Data category Uncategorized

Data type Whole number \$ % 0 0 Sort by column Sort Data groups Groups Manage relationships Relationships New column Calculations

Structure Formatting Properties

1 Day of Week =  
 2 WEEKDAY(  
 3 'Calendar Lookup'[Date]  
 4 )

Date	Day Name	Start of Week	Start of Month	Start of Quarter	Month Name	Month	Start of Year	Year	Month Number (DAX)	Month
7/1/2020	Wednesday	6/29/2020	7/1/2020	7/1/2020	July	7	1/1/2020	2020	7	JUL
7/2/2020	Thursday	6/29/2020	7/1/2020	7/1/2020	July	7	1/1/2020	2020	7	JUL
7/3/2020	Friday	6/29/2020	7/1/2020	7/1/2020	July	7	1/1/2020	2020	7	JUL
7/4/2020	Saturday	6/29/2020	7/1/2020	7/1/2020	July	7	1/1/2020	2020	7	JUL
7/5/2020	Sunday	6/29/2020	7/1/2020	7/1/2020	July	7	1/1/2020	2020	7	JUL
7/6/2020	Monday	7/6/2020	7/1/2020	7/1/2020	July	7	1/1/2020	2020	7	JUL
7/7/2020	Tuesday	7/6/2020	7/1/2020	7/1/2020	July	7	1/1/2020	2020	7	JUL
7/8/2020	Wednesday	7/6/2020	7/1/2020	7/1/2020	July	7	1/1/2020	2020	7	JUL
7/9/2020	Thursday	7/6/2020	7/1/2020	7/1/2020	July	7	1/1/2020	2020	7	JUL
7/10/2020	Friday	7/6/2020	7/1/2020	7/1/2020	July	7	1/1/2020	2020	7	JUL
7/11/2020	Saturday	7/6/2020	7/1/2020	7/1/2020	July	7	1/1/2020	2020	7	JUL
7/12/2020	Sunday	7/6/2020	7/1/2020	7/1/2020	July	7	1/1/2020	2020	7	JUL
7/13/2020	Monday	7/13/2020	7/1/2020	7/1/2020	July	7	1/1/2020	2020	7	JUL
7/14/2020	Tuesday	7/13/2020	7/1/2020	7/1/2020	July	7	1/1/2020	2020	7	JUL
7/15/2020	Wednesday	7/13/2020	7/1/2020	7/1/2020	July	7	1/1/2020	2020	7	JUL
7/16/2020	Thursday	7/13/2020	7/1/2020	7/1/2020	July	7	1/1/2020	2020	7	JUL
7/17/2020	Friday	7/13/2020	7/1/2020	7/1/2020	July	7	1/1/2020	2020	7	JUL
7/18/2020	Saturday	7/13/2020	7/1/2020	7/1/2020	July	7	1/1/2020	2020	7	JUL
7/19/2020	Sunday	7/13/2020	7/1/2020	7/1/2020	July	7	1/1/2020	2020	7	JUL
7/20/2020	Monday	7/20/2020	7/1/2020	7/1/2020	July	7	1/1/2020	2020	7	JUL



le Home Help External tools Table tools Column tools

Name Day of Week Format Whole number Summarization Sum Data category Uncategorized

Day type Whole number

Structure Formatting Properties Sort Groups Relationships Calculations

✕

✓

1

Day of Week =

2

WEEKDAY(

3

'Calendar Lookup'[Date]

4

)

1 of Week	Start of Month	Start of Quarter	Month Name	Month	Start of Year	Year	Month Number (DAX)	Month Short	Day of Week
6/29/2020	7/1/2020	7/1/2020	July	7	1/1/2020	2020	7	JUL	5
6/29/2020	7/1/2020	7/1/2020	July	7	1/1/2020	2020	7	JUL	6
6/29/2020	7/1/2020	7/1/2020	July	7	1/1/2020	2020	7	JUL	7
6/29/2020	7/1/2020	7/1/2020	July	7	1/1/2020	2020	7	JUL	1
7/6/2020	7/1/2020	7/1/2020	July	7	1/1/2020	2020	7	JUL	2
7/6/2020	7/1/2020	7/1/2020	July	7	1/1/2020	2020	7	JUL	3
7/6/2020	7/1/2020	7/1/2020	July	7	1/1/2020	2020	7	JUL	4
7/6/2020	7/1/2020	7/1/2020	July	7	1/1/2020	2020	7	JUL	5
7/6/2020	7/1/2020	7/1/2020	July	7	1/1/2020	2020	7	JUL	6
7/6/2020	7/1/2020	7/1/2020	July	7	1/1/2020	2020	7	JUL	7
7/6/2020	7/1/2020	7/1/2020	July	7	1/1/2020	2020	7	JUL	1
7/13/2020	7/1/2020	7/1/2020	July	7	1/1/2020	2020	7	JUL	2
7/13/2020	7/1/2020	7/1/2020	July	7	1/1/2020	2020	7	JUL	3
7/13/2020	7/1/2020	7/1/2020	July	7	1/1/2020	2020	7	JUL	4
7/13/2020	7/1/2020	7/1/2020	July	7	1/1/2020	2020	7	JUL	5
7/13/2020	7/1/2020	7/1/2020	July	7	1/1/2020	2020	7	JUL	6
7/13/2020	7/1/2020	7/1/2020	July	7	1/1/2020	2020	7	JUL	7
7/13/2020	7/1/2020	7/1/2020	July	7	1/1/2020	2020	7	JUL	1
7/20/2020	7/1/2020	7/1/2020	July	7	1/1/2020	2020	7	JUL	2

# Data

Number (DAX)

Month

Search

JUL

JUL

JUL

JUL

JUL

JUL

JUL

JUL

JUL

JUL

JUL

JUL

JUL

JUL

JUL

JUL

JUL

JUL

JUL

JUL

JUL

> Measure Table

✓ Calendar Lookup

Date

> Date Hierarchy

Day Name

Day of Week

Month

Month Name

Month Number (DAX)

Month Short

Start of Month

Start of Quarter

Start of Week

Start of Year

Year

> Customer Lookup

> Product Categories Lookup

> Product Lookup

> Product Subcategories Lookup

✓

## Formatting

1 Weekend =

2 IF(

```
3 | 'Calendar Lookup'[Day of week] = 6 ||
```

```
4 'Calendar Lookup'[Day of week] = 7,
```

5 "Weekend",

6	"Weekday"
---	-----------

7 )

[illegible]

Text

\$ % ,  $\rightarrow_{0.0}^{0.0}$

picture

## Formatting

```
1 Weekend =
2 IF(
3     'Calendar Lookup'[Day of Week] IN {6,7},
4     "Weekend",
5     "Weekday"
6 )
```

[illegible]





## NEW MESSAGE

From: **Dianne A. Xu** (*Senior Analyst*)

Subject: **Customer birth years**

Hey there, super easy one for you.

The customer segmentation project got me wondering if there are any interesting patterns or insights based on customer age.

Could you please add a field in our customer table to extract only the year from the birthdate field?

Thanks!

-Dianne

 Reply

 Forward



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## *Solution Preview*

---

```
1 Birth Year =  
2 YEAR(  
3 | 'Customer Lookup'[BirthDate]  
4 )
```