TABLEAU'S TOP 5 DATE

CALCULATIONS
w.vizualintelligenceconsulting.com

The DATEADD function increases or decreases the date given by the increment you specify. For example you can have a field called "Date" and increase/decrease that date by a certain amount of years, months, days, etc. In this example I decreased the "Date" field by 3 months.

## DATEADD

```
DATEADD('month',-3,[Date])
```

Month of Date Month of DATEADD
January 2016 October 2015
February 2016 November 2015
February 2017 November 2016


The DATEDIFF function finds the difference of two dates in the units you specify. In the example below we took the difference of "Date" and "DATEADD" which we know is negative 3 months. Using the DATEDIFF calculation we get the difference of the two as an integer.

## DATEDIFF

DATEDIFF('month', [Date], [DATEADD])

Month of Date Month of DATEADD

| January 2016 | October 2015 | -3 |
| :--- | :--- | :--- |
| February 2016 | November 2015 | -3 |
| February 2017 | November 2016 | -3 |



The DATETRUNC calculations is used to truncate part of the date. A good way to think about this is the date rounds down to the level you specify. For example you can round down a day to the month, a month to the quarter or a day to the year...etc. In the example below we are rounding the month down to the quarter

| Month of Last Call Date | Day of DATETRUNC |
| :--- | :--- |
| June 2015 | April 1, 2015 |
| July 2015 | July 1, 2015 |
| August 2015 | July 1, 2015 |
| September 2015 | July 1, 2015 |
| October 2015 | October 1, 2015 |
| November 2015 | October 1, 2015 |
| December 2015 | October 1, 2015 |
| January 2016 | January 1, 2016 |
| February 2016 | January 1, 2016 |
| March 2016 | January 1, 2016 |
| April 2016 | April 1, 2016 |
| May 2016 | April 1, 2016 |
| June 2016 | April 1, 2016 |
| July 2016 | July 1, 2016 |
| August 2016 | July 1, 2016 |
| September 2016 | July 1, 2016 |
| October 2016 | October 1, 2016 |
| November 2016 | October 1, 2016 |
| December 2016 | October 1, 2016 |
| January 2017 | January 1, 2017 |

The MAKEDATE function is used when you need to convert integers into a date dimension that Tableau recognize. You will need to consolidate the seperate columns into one date column in order for Tableau to recognize it as a Date. In the example below you will see we have Year, Month and Day as integers and brought those together to create a Tableau Date calculation that can be used as a regular date field.

| Month | Day | Year | Day of MAKEDATE |
| :--- | :--- | :--- | :--- |
| $\mathbf{2}$ | 16 | 2008 | February 16, 2008 |
| 3 | 6 | 2002 | March 6, 2002 |
| 5 | 9 | 2001 | May 9, 2001 |
|  | 14 | 2016 | May 14, 2016 |
| 6 | 5 | 2000 | June 5, 2000 |
| 7 | 25 | 2015 | July 25, 2015 |
| 8 | 8 | 2005 | August 8, 2005 |
| $\mathbf{1 2}$ | 25 | 2017 | December 25, 2017 |

## MAKEDATE

MAKEDATE ([Year], [Month], [Day])



The TODAY function returns todays date. This is really helpful when you need to create a dynamic calculation that depends on the current date. A great example of this is when you need to create an AGE calculation. Instead of calculating the age of someone from a specific date you can create a calculation where it always looks at today's date so the AGE field is always accurate. Below is an example of how you can use the DATEDIFF and the TODAY function to create a continuously updated AGE field.


DATEDIFE('year', [Birthday], TODAY())

| Day of Birthday | AGE |
| :--- | ---: |
| June 5, 2000 | 17 |
| May 9, 2001 | 16 |
| March 6, 2002 | 15 |
| August 8, 2005 | 12 |
| February 16, 2008 | 9 |
| July 25, 2015 | 2 |
| May 14, 2016 | 1 |
| December 25, 2017 | 0 |

