

Excel Formulas



Count

Count between dates by age range

COUNTIFS
FIND
LEFT
RIGHT

Count cells between dates

COUNTIFS
DATE

Count cells between two numbers

COUNTIFS
COUNTIF

Count cells equal to

COUNTIF

Count cells equal to case sensitive

SUMPRODUCT
EXACT

Count cells equal to either x or y

COUNTIF

Count cells equal to one of many

COUNTIFS
SUMPRODUCT

Count cells greater than

COUNTIF

Count cells less than

COUNTIF

Count cells not between two numbers

COUNTIFS
SUMPRODUCT

Count cells not equal to

COUNTIF

Count cells not equal to many things

MATCH
ISNA
SUMPRODUCT
COUNTA
COUNTIF

Excel Formulas



Count

Count cells greater than

COUNTIF

Count cells less than

COUNTIF

Count cells not between two numbers

COUNTIFS

Count cells not equal to

COUNTIF

Count cells not equal to many things

MATCHISN

Count cells not equal to x or y

COUNTIFS

Count cells over 100 characters

SUMPRODUCTLEN

Count cells that are blank

COUNTBLANK

Count cells that are not blank

COUNTA

Count cells that begin with

COUNTIF

Count cells that contain either x or y

COUNTIFS

Count cells that contain errors

SUMPRODUCTISERRORISERRSUM

Excel Formulas



Count

Count cells that contain five characters

COUNTIF

Count cells that contain negative numbers

COUNTIF

Count cells that contain numbers

COUNTSUMPRODUCT

Count cells that contain odd numbers

SUMPRODUCTMOD

Count cells that contain positive numbers

COUNTIF

Count cells that contain specific text

COUNTIFSUMPRODUCTFINDISNUMBER

Count cells that contain text

TEXTSUMPRODUCTCOUNTIFS

Count cells that do not contain

COUNTIF

Count cells that do not contain errors

ISERRORNOTSUMPRODUCTISERR

Count cells that do not contain many strings

ISNUMBERSEARCHMMULTTRANSPOSE

Count cells that end with

COUNTIF

Count dates by day of week

SUMPRODUCTWEEKDAY

Excel Formulas



Count

Count dates in given year

YEARSUMPRODUCT

Count if row meets internal criteria

SUMPRODUCT

Count if row meets multiple internal criteria

SUMPRODUCT

Count if two criteria match

COUNTIFSSUMPRODUCT

Count items in list

COUNTIFS

Count long numbers without COUNTIF

SUMPRODUCTCOUNTIF

Count matches between two columns

SUMPRODUCT

Count matching values in matching columns

SUMPRODUCTISNUMBERMATCHSEARCH

Count multiple criteria with NOT logic

SUMPRODUCTISNAMATCH

Count numbers by range with COUNTIFS

COUNTIFS

Count numbers that begin with

SUMPRODUCTLEFT

Count numbers third digit equals 3

SUMPRODUCTMID

Excel Formulas



Count

Count occurrences in entire workbook

COUNTIFSUMPRODUCT

Count paired items in listed combinations

COUNTIFSCONCAT

Count rows that contain specific values

MMULTCOLUMNTRANSPOSE

Count rows with at least n matching values

MMULTCOLUMNTRANSPOSE

Count rows with multiple OR criteria

SUMPRODUCT

Count rows with OR logic

SUMPRODUCT

Count sold and remaining

COUNTA

Count total matches in two ranges

SUMPRODUCTCOUNTIF

Count unique dates

UNIQUECOUNTCOUNTIFSUMPRODUCT

Count unique numeric values in a range

FREQUENCYSUMCOUNTIF

Count unique numeric values with criteria

FREQUENCYSUM

Count unique text values in a range

FREQUENCYMATCHROWSUMPRODUCT

Two-way summary count with COUNTIFS

COUNTIFS

Excel Formulas



Count

Count unique text values with criteria

Count unique values in a range with COUNTIF

Count visible rows in a filtered list

Count visible rows only with criteria

COUNTIF with non-contiguous range

COUNTIFS with multiple criteria and OR logic

Histogram with FREQUENCY

Running count of occurrence in list

Summary count by month with COUNTIFS

Summary count of non-blank categories

Summary count with COUNTIF

Summary count with percentage breakdown

SUMPRODUCT count multiple OR criteria

FREQUENCYMATCHROWSUM

SUMPRODUCTCOUNTIF

SUBTOTAL

SUBTOTALOFFSETSUMPRODUCT

COUNTIFINDIRECT

COUNTIFS

FREQUENCY

COUNTIF

COUNTIFSEDATE

COUNTIFS

COUNTIF

COUNTIFCOUNTA

SUMPRODUCT

Excel Formulas



3D sum multiple worksheets

SUM

3D SUMIF for multiple worksheets

SUMPRODUCTSUMIFINDIRECT

Calculate running total

SUM

Subtotal by color

SUMIF

Subtotal by invoice number

SUMIFCOUNTIF

Subtotal invoices by age

Sum bottom n values

SUMIF

Sum bottom n values with criteria

SUMPRODUCTSMALLSUMROWINDIRECT

Sum by group

SMALLSUM

Sum by month

SUMIF

Sum by month ignore year

SUMIFSEOMONTH

Sum by month in columns

SUMPRODUCTMONTH

SUMIFSEOMONTH

Excel Formulas



Sum by week

SUMIFS

Sum by week number

SUMIFSWEEKNUM

Sum by weekday

SUMPRODUCTWEEKDAY

Sum columns based on adjacent

SUMPRODUCT

criteria Sum entire column

SUM

Sum every n rows

SUMOFFSET

Sum every nth column

SUMPRODUCTCOLUMNMOD

Sum first n matching values

FILTERSEQUENCEINDEXSUM

Sum formulas only

SUMPRODUCTISFORMULANOT

Sum if begins with

SUMIFS

Sum if between

SUMIFS

Sum if by year

SUMIFS

Excel Formulas



Sum if cell contains text in another cell

SUMIFS

Sum if cells are equal to

SUMIFS

Sum if cells are not equal to

SUMIFS

Sum if cells contain an asterisk

SUMIFS

Sum if cells contain both x and y

SUMIFS

Sum if cells contain either x or y

SUMIFS
SUMPRODUCT
ISNUMBER
FIND
SEARCH
SUMIFS

Sum if cells contain specific text

Sum if date is between

SUMIFS
DATE

Sum if date is greater than

Sum if ends with

SUMIFS
DATE

Sum if equal to either x or y

SUMIFS

Sum if equal to one of many things

SUMIFS
PRODUCT

SUMIFS
PRODUCT

Excel Formulas



Sum if greater than

SUMIF SUMIFS

Sum if less than

SUMIFS

Sum if multiple criteria

SUMIFS

Sum if not blank

SUMIFS

Sum if one criteria multiple columns

SUMPRODUCT

Sum last n columns

INDEXCOLUMNSUM

Sum matching columns

SUMPRODUCTLEFT

Sum matching columns and rows

SUMPRODUCT

Sum sales in last 30 days by ID

SUMIFSTODAY

Sum through n months

Sum top n values

OFFSETSUM

Sum top n values with criteria

SUMPRODUCTLARGESUMROW

INDIRECT

SUMPRODUCTLARGE

Excel Formulas



Sum visible rows in a filtered list

SUBTOTAL

SUMIFS with horizontal range

SUMIFS

SUMIFS with multiple criteria and OR logic

SUMIFSSUM

SUMPRODUCT with IF

SUMPRODUCT

Excel Formulas



Average

Average and ignore errors

AVERAGEIFAGGREGATE

Average by month

AVERAGEIFSEOMONTH

Average if criteria not blank

AVERAGEIFS

Average last 5 values

OFFSETCOUNTAVERAGE

Average last 5 values in columns

OFFSETCOUNTAVERAGE

Average numbers

AVERAGE

Average numbers ignore zero

AVERAGEIF AVERAGEIFS

Average pay per week

SUMPRODUCTCOUNTIF

Excel Formulas



Average

Average response time per month

AVERAGEIFSEOMONTH

Average the last 3 numeric values

LOOKUPLARGEROWAVERAGEINDIRECT

Average top 3 scores

LARGEAVERAGE

Average with multiple criteria

AVERAGEIFS

Moving average formula

OFFSETAVERAGEMIN

Must pass 4 out of 6 subjects

IFCOUNTIFAND

Weighted average

SUMPRODUCTSUMAVERAGE

Excel Formulas



Dynamic array

Basic filter example

FILTER

Combine ranges

INDEXSEQUENCEROWSCOLUMNSLET

Count unique values

UNIQUECOUNTA

Count unique values with criteria

UNIQUEFILTERLENSUMCOUNTA

Distinct values

UNIQUE

Extract common values from two lists

FILTERCOUNTIFUNIQUESORT

Filter and transpose horizontal to vertical

FILTERTRANSPOSE

Filter by date

FILTERMONTH

Filter contains one of many

FILTERISNUMBERMATCH

Filter data between dates

FILTER

Filter every nth row

FILTERSEQUENCEMODROW

Excel Formulas



Dynamic array

Filter exclude blank values

FILTER

Filter horizontal data

FILTERTRANSPOSE

FILTER on first or last n values

FILTERSEQUENCEINDEX

FILTER on top n values

FILTERLARGESORT

FILTER on top n values with criteria

FILTERLARGESORT

Filter on upcoming birthdays

FILTERSORTBYLETTEXTINDEXSEQUENCE

Filter text contains

FILTERSEARCHISNUMBER

Filter this or that

FILTER

Filter to extract matching values

FILTERCOUNTIFCOUNTIFS

FILTER to remove columns

FILTERMATCHISNUMBER

FILTER with complex multiple criteria

FILTERLEFTMONTHNOT

Excel Formulas



Dynamic array

Filter with exact match

FILTERSEARCHISNUMBER

FILTER with multiple OR criteria

FILTERISNUMBERMATCH

Generate random text strings

SORTBYRANDARRAYCOUNTSEQUENCECHAR

Get column totals

MMULTSEQUENCECOLUMNS

Get row totals

MMULTSEQUENCECOLUMNS

LAMBDA append range

LAMBDALETINDEXSEQUENCE

LAMBDA append range horizontal

LAMBDALETINDEXSEQUENCE

LAMBDA contains one of many

LAMBDA SUMPRODUCTSUMISNUMBERSEARCH

LAMBDA contains which things

LAMBDALETISNUMBERSEARCHSORTBY

LAMBDA count words

LAMBDA SUBSTITUTETRIMLEN

LAMBDA replace characters recursive

LAMBDA LEFTMIDLEN

Excel Formulas



Dynamic array

LAMBDA split text to array

LAMBDA strip characters

Minimum value if unique

Random list of names

Sequence of days

Sequence of months

Sequence of times

Sequence of years

Sort birthdays by month and

day Sort by custom list

Sort by one column

LAMBDAFILTERXMLTRANSPOSE

LAMBDALETMIDMATCHISNUMBER

UNIQUEMINCOUNTIF

SORTBYRANDARRAYCOUNTSEQUENCE

SEQUENCEWORKDAY.INTL

SEQUENCEEDATEEOMONTH

SEQUENCETIME

SEQUENCEYEARMONTHDAY

SORTBYTEXT

SORTBYMATCH

SORT

Excel Formulas



Dynamic array

Sort by random

SORTBYRANDARRAYCOUNTA

Sort by two columns

SORTBY

Sort text by length

SORTBYLEN

Sort values by columns

SORTSORTBY

Unique values

UNIQUE

Unique values by count

UNIQUEFILTERCOUNTIF

Unique values ignore blanks

UNIQUEFILTER

Unique values with criteria

UNIQUEFILTER

Unique values with multiple criteria

UNIQUEFILTER

UNIQUE with non-adjacent

FILTERUNIQUESORT

columns **XLOOKUP** match any

MMULTSEQUENCECOLUMNS

column

Excel Formulas



Min and Max

Cap percentage between 0 and 100

MINMAXMEDIANIF

First in, last out times

MINIFS MAXIFS MAX IF

Large with criteria

LARGE

Larger of two values

MAX

Max of every nth column

MAXCOLUMNMOD

Max value ignore all errors

AGGREGATE MAXIFS

Max value in given month

MAXIFAGGREGATE TEXT INDEX MATCH

Max value on given weekday

MAXIFAGGREGATE

Max value with variable column

INDEXMATCH MAXFILTER COUNTIF

Maximum if multiple criteria

MAXIF MAXIFS

Maximum value

MAX MAXIFS

Maximum value if

MAXIF MAXIFS

Excel Formulas



Min and Max

Minimum difference if not blank

MINIFMINIFS

Minimum if multiple criteria

MINIFMINIFS

Minimum value

MIN

Minimum value if

MINIFMINIFS

Name of nth largest value

LARGEINDEXMATCHXLOOKUP

Name of nth largest value with

criteria nth largest value

LARGEINDEXMATCHIFXLOOKUP

nth largest value with criteria

LARGE

nth largest value with duplicates

LARGE

nth smallest value

MAXIF

nth smallest value with criteria

SMALL

Smaller of two values

SMALL

MIN

Excel Formulas



Lookup

Approximate match with multiple criteria

INDEX MATCH IF

Basic INDEX MATCH approximate

INDEX MATCH

Basic INDEX MATCH exact

INDEX MATCH

Basic Tax Rate calculation with VLOOKUP

VLOOKUP

Break ties with helper column and COUNTIF

SMALL INDEX MATCH

Calculate grades with VLOOKUP

VLOOKUP

Calculate shipping cost with VLOOKUP

VLOOKUP

Case sensitive lookup

EXACT INDEX MATCH XLOOKUP

Commission split formula example

VLOOKUP

Count missing values

COUNTIF SUMPRODUCT MATCH ISNA

Dynamic lookup table with INDIRECT

INDIRECT VLOOKUP

Exact match lookup with INDEX and MATCH

INDEX MATCH EXACT

Excel Formulas



Lookup

Exact match lookup with SUMPRODUCT

SUMPRODUCTEXACT

Extract all matches with helper column

INDEXMATCHANDSUM

Extract all partial matches

INDEXAGGREGATEISNUMBERSEARCH

Extract multiple matches into separate columns

INDEXSMALLIFERRORROWCOLUMNS

Extract multiple matches into separate rows

INDEXSMALLIFERRORROWROWS

Faster VLOOKUP with 2 VLOOKUPS

VLOOKUPNA

Find closest match

INDEXMATCHABSMINXLOOKUP

Find longest string in column

INDEXMATCHMAXLEN

Find longest string with criteria

INDEXMATCHMAXLEN

Find lowest n values

SMALLINDEXMATCH

Find missing values

COUNTIFVLOOKUPMATCH

First match in range with wildcard

INDEXMATCH

Excel Formulas



Lookup

Get address of lookup result

INDEXMATCHCELL

Get cell content at given row and column

ADDRESSINDIRECTINDEX

Get employee information with VLOOKUP

VLOOKUP

Get first match cell contains

INDEXMATCHISNUMBERSEARCHAGGREGATE

Get first non-blank value in a list

INDEXMATCHISBLANK

Get first text value in a list

VLOOKUP

Get first text value with HLOOKUP

HLOOKUP

Get information corresponding to max value

MAXMATCHINDEX

Get last match

INDEXMATCHMAXROW

Get last match cell contains

LOOKUPSEARCH

Get location of value in 2D array

SUMPRODUCTROWCOLUMN

Get nth match

SMALLIFMINROW

Excel Formulas



Lookup

Get nth match with INDEX / MATCH

INDEXSMALL

Get nth match with VLOOKUP

VLOOKUPCOUNTIF

INDEX and MATCH descending order

INDEXMATCH

Index and match on multiple columns

MMULTCOLUMNTRANSPOSEINDEX

INDEX and MATCH with multiple criteria

INDEXMATCH

INDEX with variable array

INDEXMATCHCHOOSE

Join tables with INDEX and MATCH

INDEXMATCH

Left lookup with INDEX and MATCH

INDEXMATCH

Left lookup with VLOOKUP

VLOOKUPCHOOSE

Lookup and sum column

INDEXMATCHSUM

Lookup entire column

INDEXMATCH

Lookup entire row

INDEXMATCH

Excel Formulas



Lookup

Lookup last file version

LOOKUPISNUMBERFIND

Lookup latest price

LOOKUP

Lookup lowest Monday tide

INDEXMATCHIFMINXLOOKUP

Lookup lowest value

INDEXMATCHMIN

Lookup up cost for product or service

VLOOKUP

Lookup value between two numbers

LOOKUP

Lookup with variable sheet name

VLOOKUPINDIRECT

Match first does not begin with

INDEXMATCHLEFT

Match first error

MATCHISERROR

Match first occurrence does not contain

INDEXMATCHISNUMBERSEARCH

Match long text

MATCHLEFTMIDEXACT

Match next highest value

INDEXMATCH

Excel Formulas



Lookup

Max if criteria match

MAXIFMAXIFS

Merge tables with VLOOKUP

VLOOKUP

Multi-criteria lookup and transpose

INDEXMATCH

Multiple chained VLOOKUPs

VLOOKUPIFERROR

Multiple matches in comma separated list

TEXTJOIN

Nearest location with XMATCH

INDEXXMATCH

Next largest match with the MATCH function

INDEXMATCH

Partial match with numbers and wildcard

MATCHTEXT

Partial match with VLOOKUP

VLOOKUP

Position of first partial match

MATCHINDEX

Position of max value in list

MAXMATCH

Reverse VLOOKUP example

VLOOKUPCHOOSEINDEXMATCHXLOOKUP

Excel Formulas



Lookup

Self-contained VLOOKUP

VLOOKUP

Sum lookup values using SUMIF

SUMIFS
SUMPRODUCT

Sum range with INDEX

INDEXSUM

SUMIFS multiple criteria lookup in table

SUMIFS

Two-way approximate match multiple criteria

INDEXMATCHIF

Two-way lookup with INDEX and MATCH

INDEXMATCH

Two-way lookup with VLOOKUP

VLOOKUPMATCH

VLOOKUP by date

VLOOKUP

VLOOKUP from another sheet

VLOOKUP

VLOOKUP from another workbook

VLOOKUP

VLOOKUP if blank return blank

VLOOKUPIF

VLOOKUP override output

VLOOKUP

Excel Formulas



Lookup

VLOOKUP with 2 lookup tables

VLOOKUP with multiple criteria

VLOOKUP with numbers and text

VLOOKUP with two client rates

VLOOKUP without #N/A error

XLOOKUP basic approximate match

XLOOKUP basic exact match

XLOOKUP case-sensitive

XLOOKUP date of max value

XLOOKUP horizontal lookup

XLOOKUP last match

XLOOKUP latest by date

XLOOKUP lookup left

VLOOKUP

VLOOKUP

VLOOKUPTEXTIFERROR

VLOOKUP

VLOOKUPIFERRORIFNA

XLOOKUP

XLOOKUP

XLOOKUPEXACT

XLOOKUPINDEXMATCH

XLOOKUP

XLOOKUP

XLOOKUPMAX

XLOOKUP

Excel Formulas



Lookup

XLOOKUP lookup row or column

XLOOKUP

XLOOKUP match text contains

XLOOKUPSEARCHFINDISNUMBER

XLOOKUP rearrange columns

XLOOKUP

XLOOKUP two-way exact match

XLOOKUPINDEXMATCH

XLOOKUP wildcard match example

XLOOKUPTRANSPOSE

XLOOKUP with boolean OR logic

XLOOKUP

XLOOKUP with complex multiple criteria

FILTERLEFTMONTHNOT

XLOOKUP with logical criteria

XLOOKUP

XLOOKUP with multiple criteria

XLOOKUP

XMATCH reverse search

XMATCHINDEX

Zodiac sign lookup

INDEXMATCHTEXTDATEVALUEIFNAYEAR

Excel Formulas



If

If cell begins with x, y, or z

SUMCOUNTIF

If cell contains

IF

if cell contains this or that

COUNTIFSUM

If cell equals

IF

If cell is blank

IFISBLANK

If cell is greater than

IF

If cell is not blank

IFISBLANKNOT

If cell is this OR that

IFOR

If cell is x or y and z

IFORAND

If else

IF

If not blank multiple cells

IFISBLANKNOT

If NOT this or that

IFORNOT

Excel Formulas



If

If this AND that

IFAND

If this AND that OR that

IFANDOR

IF with boolean logic

IF

IF with other calculations

IFSUMAND AVERAGE

IF with wildcards

IF

Invoice status with nested if

IFTODAY

Nested IF function example

IF

Nested IF with multiple AND

IFANDOR

Only calculate if not blank

IFISBLANKCOUNTBLANKANDORCOUNT

Return blank if

IFISBLANKCOUNTBLANK

Show checkmark if complete

IFISBLANKNOT

Tax rate calculation with fixed

IF

base Two-tier sales tax calculation

IF

Win loss points calculation

VLOOKUPIF

Excel Formulas



Grouping

Categorize text with keywords

INDEXMATCHISNUMBERSEARCHXLOOKUP

Group arbitrary text values

VLOOKUP

Group numbers at uneven intervals

LOOKUP

Group numbers with VLOOKUP

VLOOKUP

Group times into 3 hour buckets

FLOOR

Group times into unequal buckets

VLOOKUP

If cell contains one of many things

INDEXMATCHISNUMBERSEARCH

Map inputs to arbitrary values

VLOOKUPCHOOSE

Map text to numbers

VLOOKUP

Running count group by n size

COUNTACEILING

Excel Formulas



Conditional formatting

Highlight 3 smallest values with criteria

SMALLAND

Conditional formatting column is blank

ORANDNOT

Conditional formatting date past due

TODAY

Conditional formatting dates overlap

SUMPRODUCT

Find duplicate values in two columns

COUNTIFAND

Gantt chart

AND

Gantt chart by week

AND

Gantt chart time schedule

ANDOR

Gantt chart with weekends

WEEKDAY

Excel Formulas



Conditional formatting

Highlight approximate match lookup conditional formatting

LOOKUPORAND

Highlight blank cells

ISBLANKLEN

Highlight bottom values

SMALL

Highlight cells that begin with

COUNTIFFINDIFERROR

Highlight cells that contain

SEARCHFINDISNUMBER

Highlight cells that contain one of many

SEARCHFINDISNUMBERSUMPRODUCT

Highlight cells that end with

COUNTIFRIGHTLENEXACT

Highlight cells that equal

EXACT

Highlight column differences

EXACTNOT

Highlight data by quartile

QUARTILE

Highlight dates between

DATEAND

Highlight dates greater than

DATE

Excel Formulas



Conditional formatting

Highlight dates in same month and year

DATETEXT

Highlight dates in the next N days

TODAYAND

Highlight dates that are weekends

WEEKDAYOR

Highlight duplicate columns

SUMPRODUCTCOUNTIF

Highlight duplicate rows

COUNTIFSCOUNTIFSUMPRODUCT

Highlight duplicate values

COUNTIF

Highlight every other row

ISEVENISODDROWMOD

Highlight integers only

MOD

Highlight missing values

COUNTIF

Highlight multiples of specific value

MOD

Highlight numbers that include symbols

ISNUMBERMID

Excel Formulas



Conditional formatting

Highlight row and column intersection exact match

ORAND

Highlight rows that contain

SEARCHFIND

Highlight rows with blank cells

COUNTBLANK

Highlight rows with dates between

DATEAND

Highlight top values

LARGE

Highlight unique values

COUNTIF

Highlight unprotected cells

CELL

Highlight values between

AND

Highlight values not between X and Y

ANDNOT

Shade alternating groups of n rows

ROWCEILINGISEVENISODD

Excel Formulas



Data validation

Data validation allow numbers only

ISNUMBER

Data validation allow text only

ISTEXT

Data validation allow uppercase only

UPPEREXACTAND

Data validation allow weekday only

YEARTODAY

Data validation date in next 30 days

ANDTODAY

Data validation date in specific year

YEARTODAY

Data validation don't exceed total

SUM

Data validation exists in list

COUNTIF

Data validation must begin with

EXACTLEFTCOUNTIF

Data validation must contain specific text

FINDISNUMBER

Data validation must not contain

ISNUMBERSEARCHSUMPRODUCT

Data validation must not exist in list

COUNTIF

Excel Formulas



Data validation

Data validation no punctuation

FINDCOUNT

Data validation number multiple 100

MOD

Data validation only dates between

ANDDATE

Data validation require unique number

ANDISNUMBERCOUNTIF

Data validation specific characters only

MATCHCOUNTLENMIDINDIRECT

Data validation unique values only

COUNTIF

Data validation whole percentage only

TRUNCAND

Data validation with conditional list

IF

Excel Formulas



Rank

Rank function example

RANK

Rank if formula

COUNTIFS RANK

Rank race results

RANK

Rank values by month

LARGE INDEX MATCH TEXT IF

Rank with ordinal suffix

CHOOSE ABS MOD

Rank without ties

RANK COUNT IF

Excel Formulas



Round

Get decimal part of a number

TRUNC

Get integer part of a number

TRUNCINT

Get number at place value

MOD

Round a number

ROUND

Round a number down

ROUNDDOWN

Round a number down to nearest multiple

FLOOR

Round a number to n significant digits

ROUNDLOG10INTABS

Round a number to nearest multiple

MROUND

Round a number up

ROUNDUP

Round a number up to nearest multiple

CEILING

Excel Formulas



Round

Round a number up to next half

CEILING

Round a price to end in .99

ROUNDMROUND

Round by bundle size

CEILING

Round price to end in .45 or .95

CEILING

Round time to nearest 15 minutes

MROUNDCEILINGFLOOR

Round to nearest 1000

ROUND

Round to nearest 5

MROUNDCEILINGFLOOR

Excel Formulas



Date and Time

Add business days to date

WORKDAYNETWORKDAYS

Add days exclude certain days of
week Add days to date

WORKDAY.INTL

Add decimal hours to time

DAY

TIMEMOD

Add decimal minutes to time

TIMEMOD

Add months to date

EDATE

Add workdays no weekends

WORKDAY.INTLNETWORKDAYS

Add workdays to date custom
weekends Add years to date

WORKDAY.INTLNETWORKDAYS

DATEYEARMONTHDAY

Assign points based on late time

IFVALUE

Basic timesheet formula with breaks

MOD

Calculate date overlap in days

MAXMIN

Excel Formulas



Date and Time

Calculate days remaining

TODAY

Calculate expiration date

EOMONTHEDATE

Calculate number of hours between two
times Calculate retirement date

IFMOD

EDATEEOMONTH

Calculate years between dates

YEARFRACINT

Convert date string to date time

DATEVALUELEFTMIDTIMEVALUE

Convert date to Julian format

DATEYEARTEXT

Convert date to month and year

TEXT

Convert date to text

TEXT

Excel Formulas



Date and Time

Convert Excel time to Unix time

DATE

Convert text date dd/mm/yy to
mm/dd/yy Convert text timestamp into
time

DATELEFTMIDRIGHTTRIM

TIMEMID

DATELEFTMIDRIGHT

Convert text to date

MOD

Convert time to time zone

DATE

Convert Unix time stamp to Excel date

SUMPRODUCTMONTH

Count birthdays by month

COUNTIFS

Count calls at specific times

Excel Formulas



Date and Time

Count dates in current month	COUNTIFSEOMONTHSUMPRODUCTN
Count day of week between dates	WEEKDAYROWINDIRECTSUMPRODUCTSEQUENCE
Count holidays between two dates	SUMPRODUCT
Count times in a specific range	COUNTIFSTIME
Create date range from two dates	TEXTIF
Custom weekday abbreviation	WEEKDAYCHOOSE
Date is same month	MONTH
Date is same month and year	MONTHYEAR
Date is workday	WORKDAYWORKDAY.INTL
Days in month	DAYEOMONTH
Display the current date	TODAY

Excel Formulas



Date and Time

Display the current date and time

NOW

Dynamic calendar grid

WEEKDAYCHOOSE TODAY

Dynamic date list

TODAYROWS

Extract date from a date and time

INTTRUNC

Extract time from a date and time

MOD

Get age from birthday

DATEDIFTODAYDATEYEARFRACINT

Get date from day number

DATERIGHTLEFT

Get day from date

DAY

Get day name from date

TEXTWEEKDAYCHOOSE

Get days before a date

TODAY

Get days between dates

TODAYDAYS

Get days between dates ignoring years

DATEDIF

Excel Formulas



Date and Time

Get days, hours, and minutes between
dates

INTTEXT

DATEDIF

Get days, months, and years between
dates Get earliest and latest project
dates

MINIFS MAXIFS MINMAXIFS

DAYEOMONTH

EOMONTH

Get first day of month

MONTHCHOOSE

Get first day of previous month

MONTHYEAR

Get fiscal quarter from date

EOMONTHDATE

Get fiscal year from date

EOMONTHWEEKDAY

Get last day of month

WEEKDAYEOMONTH

Get last weekday in month

WEEKDAY

Get last working day in month

MONTHDATE

Get Monday of the week

Get month from date

Excel Formulas



Date and Time

Get month name from date

MONTHCHOOSETEXT

Get months between dates

DATEDIF

Get most recent day of

MOD

week Get next day of week

WEEKDAY

Get next scheduled event

MINIFMINIFSINDEXMATCH

Get nth day of week in

DAYWEEKDAY

month Get nth day of year

DATEYEAR

Get percent of year

YEARFRACYEARDATE

complete Get project end

WORKDAYWORKDAY.INTL

date

WORKDAYWORKDAY.INTL

Get project midpoint

WORKDAYWORKDAY.INTL

Get project start date

MONTHROUNDUP

Get quarter from date

Excel Formulas



Date and Time

Get same date next month **EDATE**

Get same date next year **EDATE**

Get week number from date **WEEKNUM** **ISOWEEKNUM**

Get work hours between dates **NETWORKDAYS** **NETWORKDAYS.INTL**

Get work hours between dates and times **NETWORKDAYS** **NETWORKDAYS.INTL**

Get work hours between dates custom

schedule **MIDROW** **INDIRECT** **WEEKDAYS** **SUMPRODUCT** Get workdays between

dates **NETWORKDAYS** **NETWORKDAYS.INTL**

Get year from date **YEAR**

If Monday, roll back to Friday **WEEKDAYIF**

Join date and text **TEXT**

Last n days **ANDTODAY**

Last n months **ANDTODAYEOMONTH**

Excel Formulas



Date and Time

Last n weeks

ANDTODAYWEEKDAY

Last updated date stamp

TEXTTODAY

List holidays between two dates

TEXTJOINIF

Month number from name

MONTHDATEVALUE

Next anniversary date

EDATEDATEDIF

Next biweekly payday from date

CEILING

Next business day 6 months in future

WORKDAYWORKDAY.INTL

Next working day

WORKDAYWORKDAY.INTL

Pad week numbers with zeros

TEXTWEEKNUM

Parse time string to time

TIMERIGHTLEFTMID

Sum race time splits

SUM

Sum time by week and project

SUMIFS

Excel Formulas



Date and Time

Sum time over 30 minutes **SUMPRODUCT****TIME****SUMIF****COUNTIFS**

Sum time with **SUMIF****SUMIFS**

Time difference in hours as decimal value **MOD**

Time duration with days **TIME**

Timesheet overtime calculation formula **MIN**

Total hours that fall between two times **MINMAX**

Workdays per month **NETWORKDAYS****NETWORKDAYS.INTL****EOMONTH**

Working days in year **NETWORKDAYS****NETWORKDAYS.INTL****DATE****TODAY**

Working days left in month **NETWORKDAYS****NETWORKDAYS.INTL****TODAY**

Year is a leap year **DATE****YEAR****MONTH**

Excel Formulas



Date series

Series of dates by custom days

WORKDAY.INTL

Series of dates by month

DAYMONTHYEARDATEEOMONTH

Series of dates by weekends

WORKDAY.INTLWEEKDAY

Series of dates by workdays

WORKDAYNETWORKDAYS.INTLIFWEEKDAY

Series of dates by year

DAYMONTHYEARDATE

Excel Formulas



Text

Abbreviate names or words

TEXTJOIN MID ROW CODE LEN INDIRECT

Add a line break with a formula

CHAR

Add line break based on OS

INFOCHAR

Capitalize first letter

LEFT MID LEN

Cell contains all of many things

SUMPRODUCT ISNUMBER SEARCH COUNTA

Cell contains number

FIND COUNT

Cell contains one of many things

SUMPRODUCT ISNUMBER SEARCH

Cell contains one of many with exclusions

SUMPRODUCT ISNUMBER SEARCH

Cell contains some words but not others

COUNT SEARCH AND

Cell contains specific text

SEARCH ISNUMBER FIND

Cell contains which things

SEARCH ISNUMBER FILTER TEXT JOIN

Cell equals one of many things

SUMPRODUCT

Clean and reformat telephone numbers

SUBSTITUTE

Excel Formulas



Text

Compare two strings

EXACT

Conditional message with REPT function

REPTIFAND

Convert numbers to text

TEXT

Convert string to array

MIDROWLENINDIRECT

Convert text to numbers

VALUELEFTRIGHT

Count keywords cell contains

SUMPRODUCTMATCHISNUMBERSEARCH

Count line breaks in cell

LENSUBSTITUTECHARISBLANK

Count specific characters in a cell

LENSUBSTITUTEUPPER

Count specific characters in a range

LENSUBSTITUTEUPPERSUMPRODUCT

Count specific words in a cell

LENSUBSTITUTEUPPER

Count specific words in a range

LENSUBSTITUTEUPPERSUMPRODUCT

Count total characters in a cell

LEN

Excel Formulas



Text

Count total characters in a range

LEN
SUMPRODUCT

Count total words in a cell

LEN
SUBSTITUTE
TRIM

Count total words in a range

SUMPRODUCT
LEN
SUBSTITUTE
TRIM

Double quotes inside a formula

CHAR

Extract last two words from cell

MID
LEN
SUBSTITUTE
FIND

Extract multiple lines from a cell

TRIM
MID
SUBSTITUTE
REPT
LEN

Extract nth word from text string

TRIM
MID
SUBSTITUTE
REPT
LEN

Extract substring

MID

Extract text between parentheses

MID
SEARCH

Extract word containing specific text

MID
MAX
FIND
SUBSTITUTE
REPT
TRIM

Extract word that begins with specific character

MID
LEN
FIND
SUBSTITUTE
REPT
TRIM

Find and replace multiple values

SUBSTITUTE
INDEX

Excel Formulas



Text

Find nth occurrence of character

SUBSTITUTEFINDCHAR

Get first word

LEFTFINDISERROR

Get last line in cell

TRIMSUBSTITUTERIGHTREPTCHAR

Get last word

TRIMSUBSTITUTERIGHTREPT

Join cells with comma

TRIMSUBSTITUTETEXTJOIN

MAC address format

TEXTJOINSEQUENCEMID

Most frequent text with criteria

INDEXMATCHMODEIF

Most frequently occurring text

INDEXMATCHMODE

Normalize text

SUBSTITUTETRIMLOWER

Pad text to equal length

REPTLEN

Position of 2nd 3rd etc instance of character

SUBSTITUTEFIND

Remove characters from right

LEFTLENVALUE

Remove file extension from filename

LEFTFIND

Excel Formulas



Text

Remove first character

REPLACERIGHTLENLEFT

Remove last word

MIDFINDSUBSTITUTELEN

Remove leading and trailing spaces from text

CLEANTRIMSUBSTITUTE

Remove line breaks

SUBSTITUTE CLEAN

Remove text by matching

SUBSTITUTE

Remove text by position

REPLACE

Remove text by variable position

REPLACEFIND

Remove unwanted characters

SUBSTITUTECHARCODELEFT

Replace one character with another

SUBSTITUTE

Reverse text string

TEXTJOINMIDINDIRECTSEQUENCE

Split dimensions into three parts

LEFTRIGHTMIDLENSUBSTITUTE

Split dimensions into two parts

SUBSTITUTELEFTRIGHTFIND

Excel Formulas



Text

Split numbers from units of measure

MAXLEFTRIGHTISNUMBERVALUEMID

Split text and numbers

FINDMINRIGHTLEFT

Split text string at specific character

LEFTRIGHTLENFIND

Split text with delimiter

TRIMMIDSUBSTITUTEREPTLEN

Strip html from text or numbers

MIDLEN

Strip non-numeric characters

TEXTJOINMIDROWINDIRECT

Strip numeric characters from cell

TEXTJOINMIDROWINDIRECTSEQUENCELET

Text split to array

FILTERXMLSUBSTITUTETRANSPOSE

Translate letters to numbers

TEXTJOINVLOOKUPMIDROWT

Trim text to n words

LEFTSUBSTITUTEFIND

Excel Formulas



Financial

Annual compound interest schedule

FV

Annuity solve for interest rate

RATE

Bond valuation example

PV FV PRICE

CAGR formula examples

GEOMEAN RRI

Calculate compound interest

FV

Calculate cumulative loan interest

CUMIPMT

Calculate cumulative loan principal payments

CUMPRINC

Calculate interest for given period

PPMT

Calculate interest rate for loan

RATE

Calculate loan interest in given year

CUMIPMT

Calculate original loan amount

PV

Calculate payment for a loan

PMT

Excel Formulas



Financial

Calculate payment periods for loan

NPER

Calculate periods for annuity

PMT PV FV

Calculate principal for given period

PPMT

Compare effect of compounding periods

FV

Effective annual interest rate

EFFECT RRI

Estimate mortgage payment

PMT PV FV

Future value of annuity

FV PV

Future value vs. Present value

PV FV

Income tax bracket calculation

VLOOKUP

NPV formula for net present value

NPV

Payment for annuity

PMT PV FV

Present value of annuity

PV FV

Excel Formulas



Geometry

Area of a circle

PIPOWER

Circumference of a circle

PI

Distance formula

SQRT

Surface area of a cone

PIPOWER

Surface area of a cylinder

PIPOWER

Surface area of a sphere

PIPOWER

Volume of a cone

PIPOWER

Volume of a cylinder

PIPOWER

Excel Formulas



Geometry

Area of a circle

PIPOWER

Circumference of a circle

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Distance formula

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Surface area of a cone

PIPOWER

Surface area of a cylinder

PIPOWER

Surface area of a sphere

PIPOWER

Volume of a cone

PIPOWER

Volume of a cylinder

PIPOWER

Volume of a sphere

PIPOWER

Excel Formulas



Workbook

Dynamic workbook reference

INDIRECT

Dynamic worksheet reference

INDIRECT

Get full workbook name and path

CELL

Get sheet name only

CELLMIDFIND

Get workbook name and path without sheet

CELLLEFTFINDSUBSTITUTE

Get workbook name only

CELLMIDFIND

Get workbook path only

CELLLEFTFIND

Indirect named range different sheet

INDIRECT

List sheet index numbers

SHEET

List sheet names with formula

INDEXMIDROWNOWT

Worksheet name exists

ISREFINDIRECT

Excel Formulas



Internet

Create email address from name

LEFTLOWER

Create email address with name and domain

LEFTLOWER

Get domain from email address

RIGHTLENFIND

Get domain name from URL

LEFTFIND

Get name from email address

LEFTFIND

Get page from URL

TRIMRIGHTSUBSTITUTELEFT

Get top level domain (TLD)

RIGHTLENSUBSTITUTEFIND

Remove trailing slash from url

LENRIGHTLEFT

Strip protocol and trailing slash from URL

MIDRIGHTLENFIND

Excel Formulas



Names

Get first name from name

LEFTFIND

Get first name from name with comma

RIGHTLENFIND

Get last name from name

RIGHTLENSUBSTITUTEFIND

Get last name from name with comma

LENLEFT

Get middle name from full name

MIDLENTRIM

Join first and last name

CONCATENATE

Put names into proper case

PROPERTRIM

Excel Formulas



Percentage

Calculate percent variance

ABS

Project complete percentage

COUNTA

Excel Formulas



Random

Random date between two dates

RANDBETWEENWORKDAY

Random number between two numbers

RANDBETWEEN

Random number from fixed set of options

CHOOSE(RANDBETWEEN

Random number weighted probability

RANDMATCHINDEX

Random text values

CHOOSE(RANDBETWEEN

Random times at specific intervals

RAND

Random value from list or table

INDEX(RANDBETWEENROWS

Randomly assign data to groups

RANDBETWEENCHOOSE

Randomly assign people to groups

RANDROUNDUPCEILING

Excel Formulas



Range

Add row numbers and skip blanks

COUNTAIFISBLANK

Address of first cell in range

ADDRESSROWCOLUMNCELL

Address of last cell in range

ADDRESSROWCOLUMNROWSCOLUMNS

All cells in range are blank

SUMPRODUCT

All values in a range are at least

COUNTIFNOT

Count visible columns

CELLNSUM

COUNTIFS with variable range

COUNTIFSOFFSETADDRESSINDIRECTROW

Define range based on cell value

INDEXOFFSET

Dynamic named range with INDEX

INDEXCOUNTA

Dynamic named range with OFFSET

OFFSETCOUNTA

First column number in range

ROWSMIN

First match between two ranges

INDEXMATCHCOUNTIF

First row number in range

ROWMIN

Excel Formulas



Range

Get address of named range

ADDRESSROWCOLUMNCOLUMNS

Get relative column numbers in range

COLUMNSEQUENCECOLUMNS

Get relative row numbers in range

ROWSEQUENCEROWS

Last column number in range

COLUMNCOLUMNSMIN

Last n rows

ROWROWSINDEX

Last row in mixed data with blanks

MATCH

Last row in mixed data with no blanks

COUNTA

Last row in numeric data

MATCH

Last row in text data

MATCHREPT

Last row number in range

ROWROWSMIN

Multiple cells are equal

ANDEXACT

Multiple cells have same value

COUNTIF

Multiple cells have same value case sensitive

EXACTSUMPRODUCTCOUNTA

Excel Formulas



Range

Multiple columns are equal

ANDCOUNTIF

Range contains a value not in another range

SUMPRODUCTMATCHISNA

Range contains numbers

SUMPRODUCTISNUMBER

Range contains specific date

COUNTIFS DATETODAY

Sequential row numbers

ROW

Total cells in a range

ROWSCOLUMNS

Total columns in range

COLUMNS

Total rows in range

ROWS

Excel Formulas



Tables

Automatic row numbers in Table

ROWINDEX

Average last N values in a table

INDEXAVERAGEROWS

Basic inventory formula example

SUMIFS

Count table columns

COLUMNS

Count table rows

ROWS

COUNTIFS with variable table column

COUNTIFSINDEXMATCHINDIRECT

Dynamic reference Table name

INDIRECT

Get column index in Excel Table

MATCH

Get column name from index in table

INDEX

Percentile IF in table

PERCENTILE

Excel Formulas



Tables

Running count in Table

INDEXSUM

Running total in Table

INDEXSUM

Sum multiple tables

SUM

SUMIFS vs other lookup formulas

SUMIFSINDEXMATCHLOOKUPXLOOKUPSUMPRODUCT

SUMIFS with Excel Table

SUMIFS

Two-way lookup VLOOKUP in a Table

VLOOKUPMATCH

Two-way summary with SUMIFS

SUMIFS

Excel Formulas



Errors

How to fix the #DIV/0! error

IFERRORISERRORERROR.TYPE

How to fix the #N/A error

VLOOKUPIFERRORMATCH

How to fix the #NAME? error

IFERRORISERRORERROR.TYPE

How to fix the #NULL! error

IFERRORISERRORERROR.TYPE

How to fix the #NUM! error

IFERRORISERRORERROR.TYPE

How to fix the #REF! error

ISREFIFERROR

How to fix the #SPILL! error

IFERRORISERRORERROR.TYPE

How to fix the #VALUE! error

IFERRORISERRORERROR.TYPE

Excel Formulas



Miscellaneous

Abbreviate state names

VLOOKUPINDEXMATCH

All dates in chronological order

IFSUMPRODUCTSORT

Basic array formula example

MAXMIN

Basic attendance tracking formula

COUNTIF

Basic error trapping example

IFERROR

Basic in cell histogram

REPTCHAR

Basic numeric sort formula

RANKCOUNTIF

Basic outline numbering

COUNTAMIDFINDLEN

Basic text sort formula

RANKCOUNTIF

BMI calculation formula

CONVERTPOWER

Build hyperlink with VLOOKUP

HYPERLINKVLOOKUP

Calculate a ratio from two numbers

GCD

Cap percentage at 100

MIN

Excel Formulas



Miscellaneous

Cap percentage at specific amount

MIN

Carry-on baggage Inches to centimeters

CONVERT

Cash denomination calculator

SUMPRODUCTINTFLOOR

Celsius to Fahrenheit conversion

CONVERT

Change negative numbers to positive

ABS

Check register balance

IFANDISBLANK

Coefficient of variation

STDEV.PSTDEV.SAVERAGE

Conditional median with criteria

MEDIAN

Conditional mode with criteria

MODE

Convert column letter to number

COLUMNINDIRECT

Convert column number to letter

ADDRESSSUBSTITUTE

Convert expense time units

INDEXMATCH

Convert feet and inches to inches

LEFTFINDMIDSUBSTITUTE

Excel Formulas



Miscellaneous

Convert inches to feet and inches

INTMOD

Convert pounds to kilograms

CONVERT

Copy value from every nth column

OFFSETCOLUMN

Copy value from every nth row

OFFSETROW

Count consecutive monthly orders

FREQUENCYMAXIF

Count values out of tolerance

SUMPRODUCTABS

Count with repeating values

ROUNDUPCOLUMNROW

Course completion status summary

COUNTIFS

Course completion summary with criteria

COUNTIFS

Create array of numbers

INDIRECTROW

Cube root of number

POWER

Customer is new

COUNTIFS

Excel Formulas



Miscellaneous

Display sorted values with helper column

INDEXMATCHROWS

Dropdown sum with all option

SUMIFSUMIF

Easy bundle pricing with SUMPRODUCT

SUMPRODUCT

Expense begins on specific month

IF

Extract unique items from a list

INDEXMATCHCOUNTIFLOOKUP

Filter values in array formula

ISNUMBERMATCH

Find and retrieve missing values

INDEXMATCHISNA

Fixed value every N columns

MODCOLUMN

Flag first duplicate in a list

COUNTIFCOUNTIFS

Flip table rows to columns

TRANSPOSE

Force negative numbers to zero

MAX

Forecast vs actual variance

SUMIFS

Excel Formulas



Miscellaneous

Formula with locked reference

INDIRECT

Get date associated with last entry

LOOKUP

Get first entry by month and year

INDEXMATCHTEXT

Get last entry by month and year

LOOKUPTEXT

Get pivot table grand total

GETPIVOTDATA

Get pivot table subtotal

GETPIVOTDATA

Get pivot table subtotal grouped date

GETPIVOTDATA

Get value of last non-empty cell

LOOKUP

Hyperlink to first blank cell

HYPERLINKCELLINDEXMATCH

Hyperlink to first match

HYPERLINKCELLINDEXMATCH

Increment a calculation with ROW or COLUMN

ROWCOLUMN

Increment a number in a text string

RIGHTTEXT

Increment cell reference with INDIRECT

INDIRECTCELL

Excel Formulas



Miscellaneous

Issue response time calculation

VLOOKUP

Leave a comment in a formula

N

Link to multiple sheets

HYPERLINKCELLINDEXMATCH

List contains duplicates

SUMPRODUCTCOUNTIF

List most frequently occurring numbers

MODEISNUMBERMATCH

Longest winning streak

FREQUENCYMAXIF

Lookup last file revision

SEARCHISERRORMAXINDEXIFROW

Most frequently occurring number

MODE

New customers per month

COUNTIFSEOMONTH

Nightly hotel rate calculation

SUMPRODUCTFILTERINDEXMATCH

Normalize size units to Gigabytes

MATCHLEFTRIGHT

Excel Formulas



Miscellaneous

nth root of number

POWER

Odometer gas mileage log

SUMMAXMIN

One or the other not both

XOR

Pad a number with zeros

TEXTREPT

Parse XML with formula

FILTERXML

Random sort formula

INDEXMATCH

Range contains one of many substrings

SUMPRODUCTCOUNTIF

Range contains one of many values

SUMPRODUCTISNUMBERSEARCH

Range contains specific text

COUNTIF

Repeat fixed value every 3 months

MODDATEDIF

Return array with INDEX function

INDEXMATCHN

Reverse a list or range

INDEXCOUNTROWSORTBYSEQUENCE

Excel Formulas



Miscellaneous

Risk Matrix Example

INDEXMATCH

Score quiz answers with key

SUMCOUNTA

Search entire worksheet for value

COUNTIF

Search multiple worksheets for value

COUNTIFINDIRECT

Send email with formula

HYPERLINK

Show formula text with formula

FORMULATEXTIFERRORISFORMULA

Simple currency conversion

VLOOKUPINDEXMATCH

Sort and extract unique values

MMULTTRANSPOSEINDEXMATCH

Sort numbers ascending or descending

SMALLLARGE

Sort text and numbers with formula

RANKCOUNTIFCOUNT

Split payment across months

AND

Square root of number

SQRTPOWER

Excel Formulas



Miscellaneous

Standard deviation calculation

STDEV.PSTDEV.SSTDEVSTDEVP

Student class enrollment with table

IFCOUNTIF

Sum every 3 cells

OFFSETCOLUMN

Sum text values like numbers

INDEXMATCHN

Transpose table without zeros

TRANSPOSEIF

Validate input with check mark

IFCOUNTIF

Value exists in a range

COUNTIFMATCH

Value is between two numbers

ANDMAXMIN

Value is within tolerance

IFABS

Volunteer hours requirement calculation

ANDCOUNTIFSUM