# Analyse a Dataset in Excel: quantitative data

Fondamenti di Business Analytic

Lesson 3 - Gambaro

# Roadmap

- Dynamic cumulative frequencies of quantitative discrete data:
  - SCAN + LAMBDA functions

- Analysis of continuous quantitative data
  - Construction of classes
  - FREQUENCY function
  - Histogram of densities
  - Combo chart with cumulative percentage frequency

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Paste | Calibri 11 | Wrap Text | General | Merge & Centre | Conditional Formatting | Format as Table | Cell Styles | Insert | Delete | Format | Sort & Filter | Find & Select | Analyse Data | Sensitivity | Add-ins | Excel Labs

Clipboard | Font | Alignment | Number | Styles | Cells | Editing | Analysis | Sensitivity | Add-ins | Excel Labs

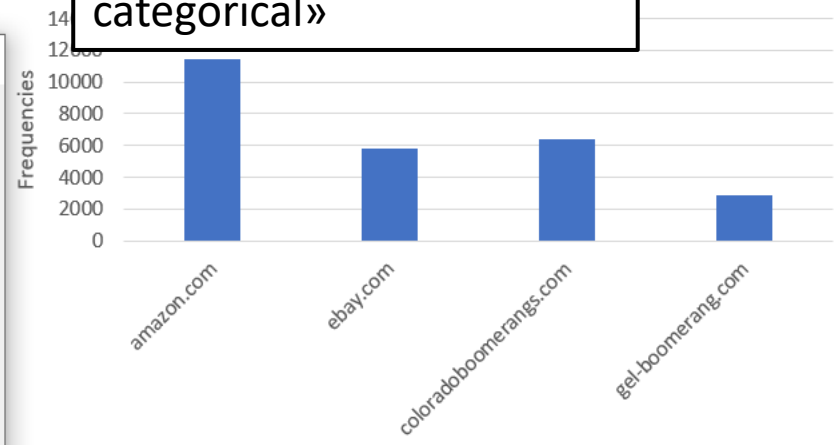
M1

| | A | B | C |
|---|---|---|---|
| 1 | **Analysis Categorical Variables** | TRUE | |
| 2 | | 26514 | 100% |
| 3 | Web Site | Frequencies | Percentage Freq. |
| 4 | amazon.com | 11430 | 43% |
| 5 | ebay.com | 5809 | 22% |
| 6 | coloradoboomerangs.com | 6378 | 24% |
| 7 | gel-boomerang.com | 2897 | 11% |

| Categorical | Column Index |
|---|---|
| Web Site | 2 |
| Product | |
| Type | |

='Lesson2-Gambaro-BoomerangDataset.xlsx'!drng_freqcat
='Lesson2-Gambaro-BoomerangDataset.xlsx'!drng_cat
='Lesson2-Gambaro-BoomerangDataset.xlsx'!drng_freqrelcat

Copy the sheet «Analysis categorical»




Move or Copy

Move selected sheets

To book: Lesson3-Gambaro-BoomerangDataset.xlsx

Before sheet:
Sales Data
Analysis categorical
Sheet1
(move to end)

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Web Site

Sales Data | Analysis categorical | Sheet1

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M1

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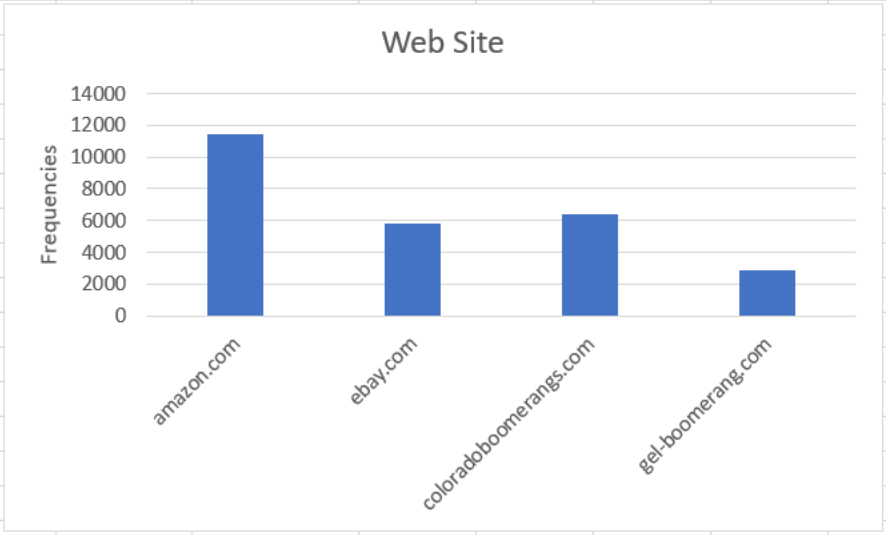
='Lesson2-Gambaro-BoomerangDataset.xlsx'!drng_freqrelcat





Rename the sheet «Analysis Quant Discr»

Sales Data | Analysis categorical | Analysis Quant Discr | Sheet1

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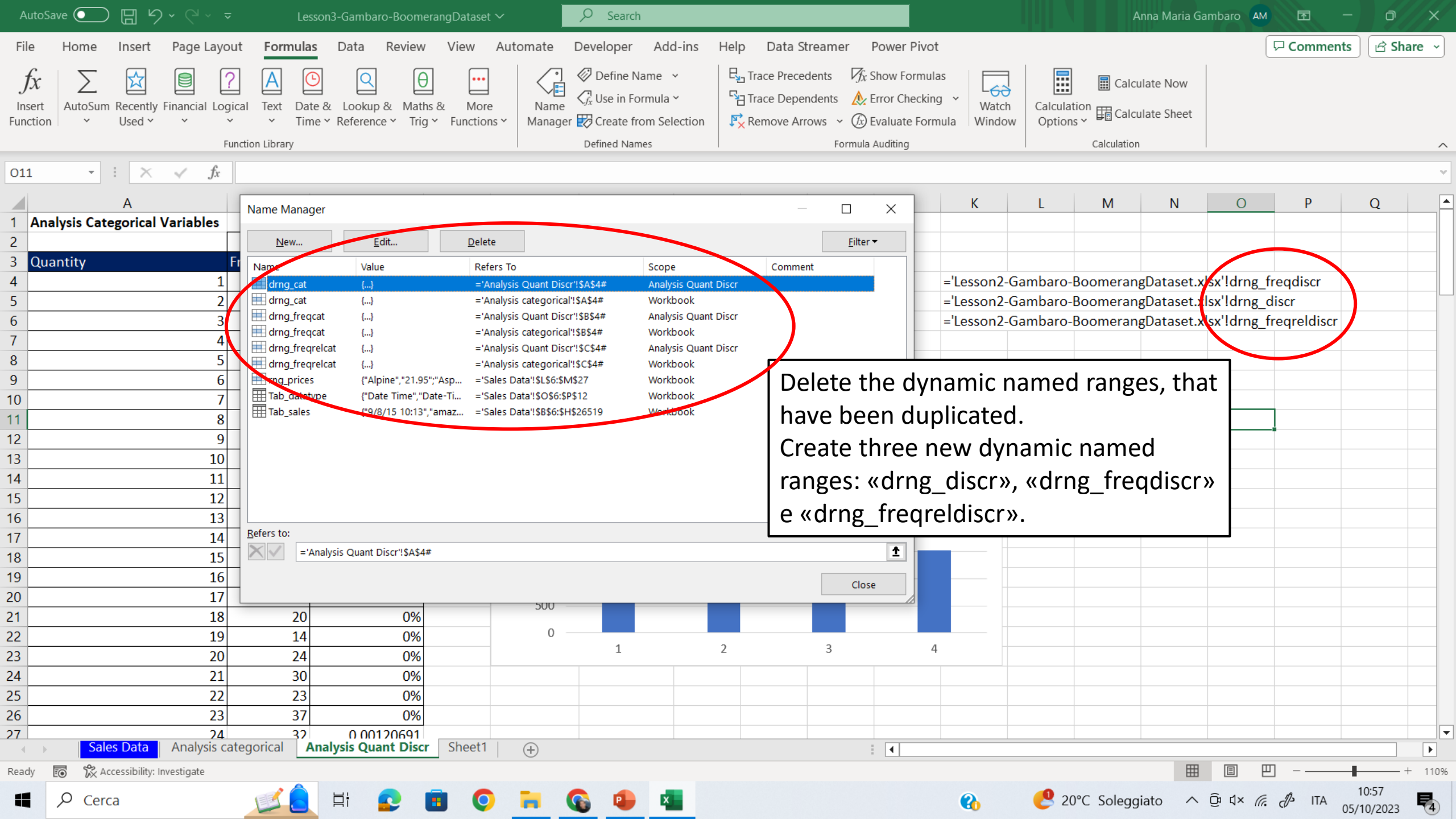
Name Manager
New...
Edit...
Delete
Filter
Name
Value
Refers To
Scope
Comment
drng_cat {...} ='Analysis Quant Discr'!$A$4# Analysis Quant Discr
drng_cat {...} ='Analysis categorical'!$A$4# Workbook
drng_freqcat {...} ='Analysis Quant Discr'!$B$4# Analysis Quant Discr
drng_freqcat {...} ='Analysis categorical'!$B$4# Workbook
drng_freqrelcat {...} ='Analysis Quant Discr'!$C$4# Analysis Quant Discr
drng_freqrelcat {...} ='Analysis categorical'!$C$4# Workbook
rng_prices {"Alpine","21.95";"Asp... ='Sales Data'!$L$6:$M$27 Workbook
Tab_datatype {"Date Time","Date-Ti... ='Sales Data'!$O$6:$P$12 Workbook
Tab_sales {"9/8/15 10:13","amaz... ='Sales Data'!$B$6:$H$26519 Workbook
Refers to:
='Analysis Quant Discr'!$A$4#
Close
='Lesson2-Gambaro-BoomerangDataset.xlsx'!drng_freqdiscr
='Lesson2-Gambaro-BoomerangDataset.xlsx'!drng_discr
='Lesson2-Gambaro-BoomerangDataset.xlsx'!drng_freqreldiscr
Delete the dynamic named ranges, that have been duplicated.
Create three new dynamic named ranges: «drng_discr», «drng_freqdiscr» e «drng_freqreldiscr».

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Name Manager | Define Name | Use in Formula | Create from Selection — Defined Names

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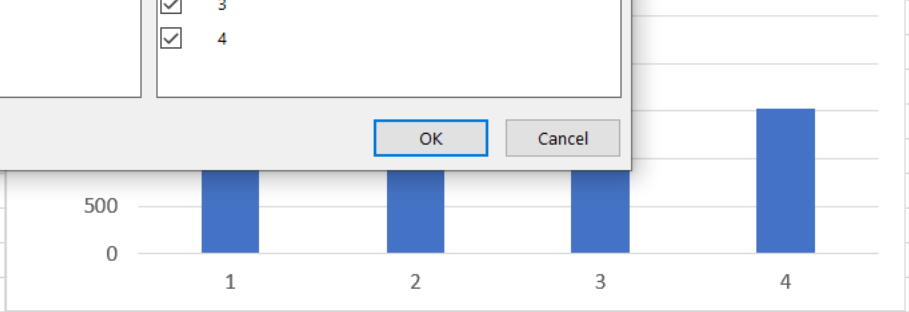
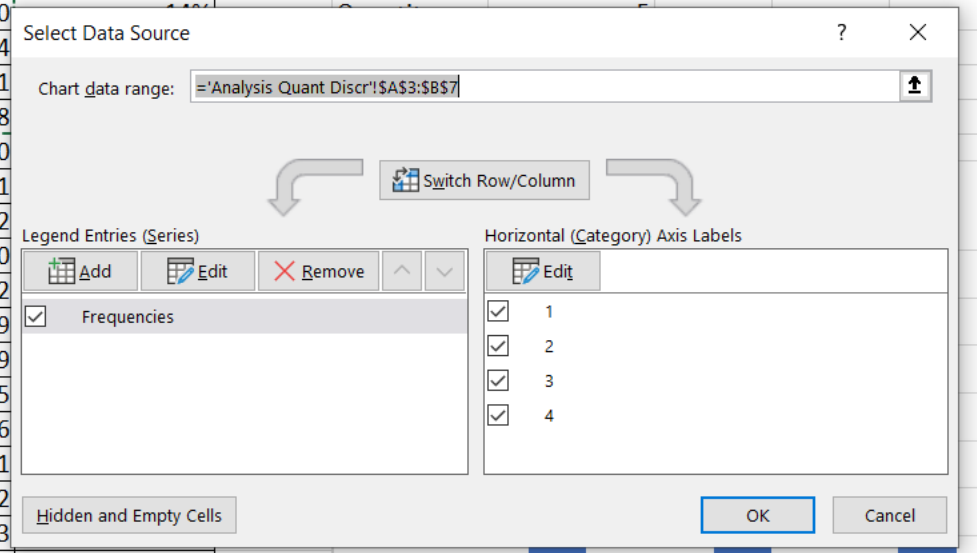
Calculation Options | Calculate Now | Calculate Sheet — Calculation

A3

| | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | **Analysis Categorical Variables** | TRUE | | | | | | | | | | | | | | | |
| 2 | | 26514 | 100% | | | | | | | | | | | | | | |
| 3 | Quantity | Frequencies | Percentage Freq. | | Quant. Discr. | Column Index | | | | | | | | | | | |
| 4 | 1 | 3630 | | | | | | | | | ='Lesson2-Gambaro-BoomerangDataset.xlsx'!drng_freqdiscr | | | | | | |
| 5 | 2 | 3624 | | | | | | | | | ='Lesson2-Gambaro-BoomerangDataset.xlsx'!drng_discr | | | | | | |
| 6 | 3 | 2271 | | | | | | | | | ='Lesson2-Gambaro-BoomerangDataset.xlsx'!drng_freqreldiscr | | | | | | |
| 7 | 4 | 1528 | | | | | | | | | | | | | | | |
| 8 | 5 | 1320 | | | | | | | | | | | | | | | |
| 9 | 6 | 1371 | | | | | | | | | | | | | | | |
| 10 | 7 | 982 | | | | | | | | | | | | | | | |
| 11 | 8 | 470 | | | | | | | | | | | | | | | |
| 12 | 9 | 372 | | | | | | | | | | | | | | | |
| 13 | 10 | 19 | | | | | | | | | | | | | | | |
| 14 | 11 | 19 | | | | | | | | | | | | | | | |
| 15 | 12 | 25 | | | | | | | | | | | | | | | |
| 16 | 13 | 16 | | | | | | | | | | | | | | | |
| 17 | 14 | 11 | | | | | | | | | | | | | | | |
| 18 | 15 | 22 | | | | | | | | | | | | | | | |
| 19 | 16 | 13 | | | | | | | | | | | | | | | |
| 20 | 17 | 22 | 0% | | | | | | | | | | | | | | |
| 21 | 18 | 20 | 0% | | | | | | | | | | | | | | |
| 22 | 19 | 14 | 0% | | | | | | | | | | | | | | |
| 23 | 20 | 24 | 0% | | | | | | | | | | | | | | |
| 24 | 21 | 30 | 0% | | | | | | | | | | | | | | |
| 25 | 22 | 23 | 0% | | | | | | | | | | | | | | |
| 26 | 23 | 37 | 0% | | | | | | | | | | | | | | |
| 27 | 24 | 32 | 0.00120691 | | | | | | | | | | | | | | |




Change the references to dynamic named ranges in «Select Data» of the bar-chart

Sales Data | Analysis categorical | Analysis Quant Discr | Sheet1

Point | Accessibility: Investigate

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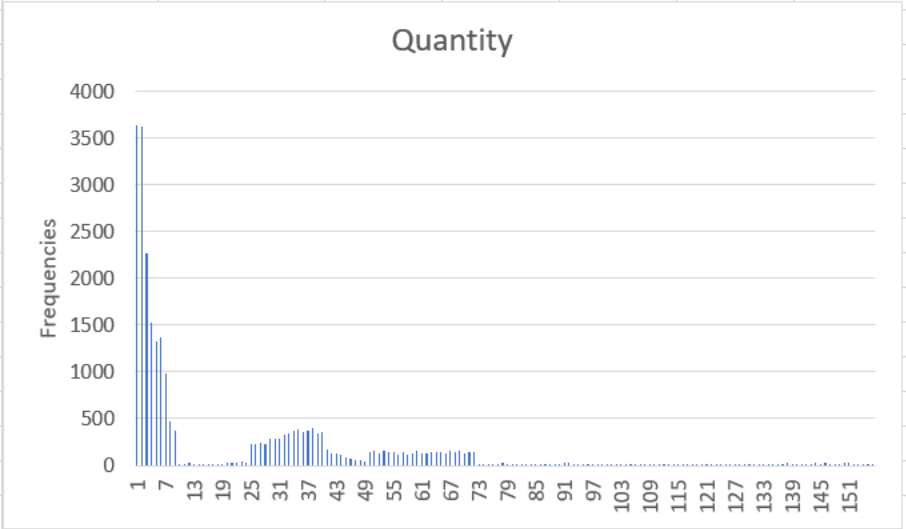
Trace Precedents | Trace Dependents | Remove Arrows | Show Formulas | Error Checking | Evaluate Formula | Watch Window — Formula Auditing

Calculation Options | Calculate Now | Calculate Sheet — Calculation

SUM | =SORT(UNIQUE(INDEX(Tab_sales,,F4)))

| | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | **Analysis Categorical Variables** | TRUE | | | | | | | | | | | | | | | |
| 2 | | 26514 | 100% | | | | | | | | | | | | | | |
| 3 | | | Percentage Freq. | | Quant. Discr. | Column Index | | | | | | | | | | | |
| 4 | =SORT(UNIQUE(INDEX(Tab_sales,,F4))) | | 14% | | Quantity | 5 | | | | | ='Lesson3-Gambaro-BoomerangDataset.xlsx'!drng_freqdiscr | | | | | | |
| 5 | SORT(**array**, [sort_index], [sort_order], [by_col]) | 624 | 14% | | | | | | | | ='Lesson3-Gambaro-BoomerangDataset.xlsx'!drng_discr | | | | | | |
| 6 | 3 | 2271 | 9% | | | | | | | | ='Lesson3-Gambaro-BoomerangDataset.xlsx'!drng_freqreldiscr | | | | | | |
| 7 | 4 | 1528 | 6% | | | | | | | | | | | | | | |
| 8 | 5 | 1320 | 5% | | | | | | | | | | | | | | |
| 9 | 6 | 1371 | 5% | | | | | | | | | | | | | | |
| 10 | 7 | 982 | 4% | | | | | | | | | | | | | | |
| 11 | 8 | 470 | 2% | | | | | | | | | | | | | | |
| 12 | 9 | 372 | 1% | | | | | | | | | | | | | | |
| 13 | 10 | 19 | 0% | | | | | | | | | | | | | | |
| 14 | 11 | 19 | 0% | | | | | | | | | | | | | | |
| 15 | 12 | 25 | 0% | | | | | | | | | | | | | | |
| 16 | 13 | 16 | 0% | | | | | | | | | | | | | | |
| 17 | 14 | 11 | 0% | | | | | | | | | | | | | | |
| 18 | 15 | 22 | 0% | | | | | | | | | | | | | | |
| 19 | 16 | 13 | 0% | | | | | | | | | | | | | | |
| 20 | 17 | 22 | 0% | | | | | | | | | | | | | | |
| 21 | 18 | 20 | 0% | | | | | | | | | | | | | | |
| 22 | 19 | 14 | 0% | | | | | | | | | | | | | | |
| 23 | 20 | 24 | 0% | | | | | | | | | | | | | | |
| 24 | 21 | 30 | 0% | | | | | | | | | | | | | | |
| 25 | 22 | 23 | 0% | | | | | | | | | | | | | | |
| 26 | 23 | 37 | 0% | | | | | | | | | | | | | | |
| 27 | 24 | 32 | 0.00120691 | | | | | | | | | | | | | | |

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Name Manager | Define Name | Use in Formula | Create from Selection — Defined Names

Trace Precedents | Trace Dependents | Remove Arrows | Show Formulas | Error Checking | Evaluate Formula — Formula Auditing

Watch Window

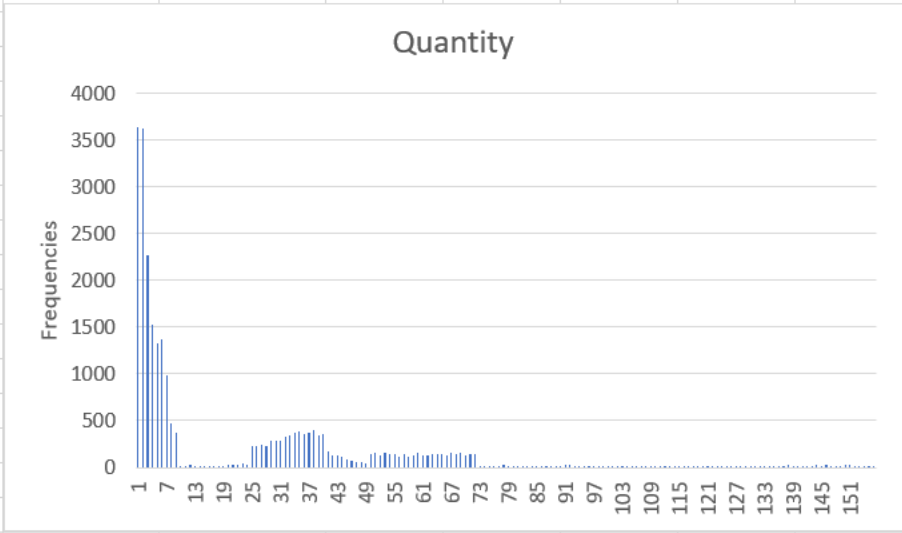
Calculation Options | Calculate Now | Calculate Sheet — Calculation

SUM | =SUM($C$4:C4)

| | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | **Analysis Categorical Variables** | TRUE | | | | | | | | | | | | | | |
| 2 | | 26514 | 100% | | | | | | | | | | | | | |
| 3 | Quantity | Frequencies | Percentage Freq. | | | Quant. Dis | | | | | | | | | | |
| 4 | 1 | 3630 | 14% | =SUM($C$4:C4) | | Quantity | 5 | | | | | ='Lesson3-Gambaro-BoomerangDataset.xlsx'!drng_fre | | | | |
| 5 | 2 | 3624 | 14% | 36% | | | | | | | | ='Lesson3-Gambaro-BoomerangDataset.xlsx'!drng_dis | | | | |
| 6 | 3 | 2271 | 9% | 42% | | | | | | | | ='Lesson3-Gambaro-BoomerangDataset.xlsx'!drng_fre | | | | |
| 7 | 4 | 1528 | 6% | 47% | | | | | | | | | | | | |
| 8 | 5 | 1320 | 5% | 52% | | | | | | | | | | | | |
| 9 | 6 | 1371 | 5% | 56% | | | | | | | | | | | | |
| 10 | 7 | 982 | 4% | 57% | | | | | | | | | | | | |
| 11 | 8 | 470 | 2% | 59% | | | | | | | | | | | | |
| 12 | 9 | 372 | 1% | 59% | | | | | | | | | | | | |
| 13 | 10 | 19 | 0% | 59% | | | | | | | | | | | | |
| 14 | 11 | 19 | 0% | 59% | | | | | | | | | | | | |
| 15 | 12 | 25 | 0% | 59% | | | | | | | | | | | | |
| 16 | 13 | 16 | 0% | 59% | | | | | | | | | | | | |
| 17 | 14 | 11 | 0% | 59% | | | | | | | | | | | | |
| 18 | 15 | 22 | 0% | 59% | | | | | | | | | | | | |
| 19 | 16 | 13 | 0% | 59% | | | | | | | | | | | | |
| 20 | 17 | 22 | 0% | 59% | | | | | | | | | | | | |
| 21 | 18 | 20 | 0% | 59% | | | | | | | | | | | | |
| 22 | 19 | 14 | 0% | 59% | | | | | | | | | | | | |
| 23 | 20 | 24 | 0% | 59% | | | | | | | | | | | | |
| 24 | 21 | 30 | 0% | 60% | | | | | | | | | | | | |
| 25 | 22 | 23 | 0% | 60% | | | | | | | | | | | | |
| 26 | 23 | 37 | 0% | 60% | | | | | | | | | | | | |
| 27 | 24 | 32 | 0.00120691 | 60% | | | | | | | | | | | | |

SUM(**number1**, [number2], ...)

Cumulative sum: static method.

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Name Manager | Define Name | Use in Formula | Create from Selection — Defined Names

Trace Precedents | Trace Dependents | Remove Arrows | Show Formulas | Error Checking | Evaluate Formula | Watch Window — Formula Auditing

Calculation Options | Calculate Now | Calculate Sheet — Calculation

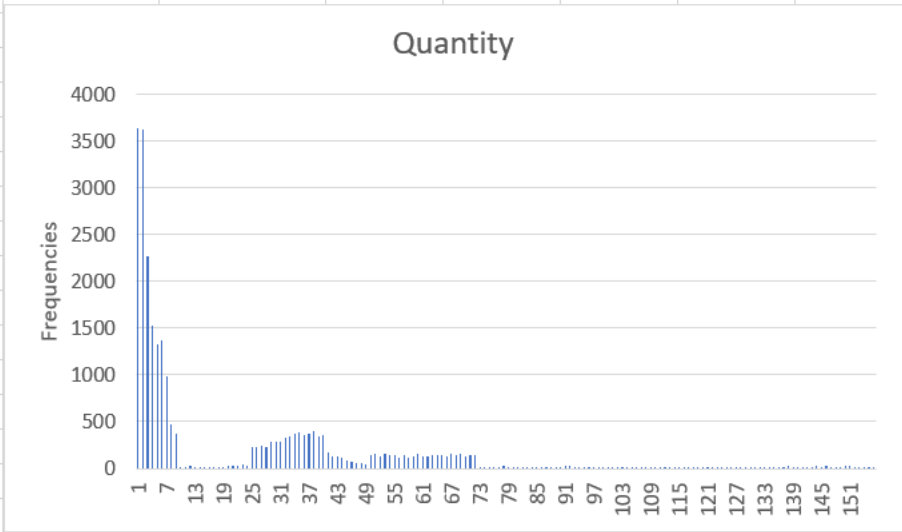
SUM | =SCAN(0,C4#,LAMBDA(x,y,x+y))

| | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | **Analysis Categorical Variables** | TRUE | | | | | | | | | | | | | | |
| 2 | | 26514 | 100% | | | | | | | | | | | | | |
| 3 | Quantity | Frequencies | Percentage Freq. | | | Quant. D | | | | | | | | | | |
| 4 | 1 | 3630 | 14% | =SCAN(0,C4#,LAMBDA(x,y,x+y)) | | Quantity | | | | | | | | | | |
| 5 | 2 | 3624 | 14% | | | | | | | | | | | | | |
| 6 | 3 | 2271 | 9% | 36% | | | | | | | | | | | | |
| 7 | 4 | 1528 | 6% | 42% | | | | | | | | | | | | |
| 8 | 5 | 1320 | 5% | 47% | | | | | | | | | | | | |
| 9 | 6 | 1371 | 5% | 52% | | | | | | | | | | | | |
| 10 | 7 | 982 | 4% | 56% | | | | | | | | | | | | |
| 11 | 8 | 470 | 2% | 57% | | | | | | | | | | | | |
| 12 | 9 | 372 | 1% | 59% | | | | | | | | | | | | |
| 13 | 10 | 19 | 0% | 59% | | | | | | | | | | | | |
| 14 | 11 | 19 | 0% | 59% | | | | | | | | | | | | |
| 15 | 12 | 25 | 0% | 59% | | | | | | | | | | | | |
| 16 | 13 | 16 | 0% | 59% | | | | | | | | | | | | |
| 17 | 14 | 11 | 0% | 59% | | | | | | | | | | | | |
| 18 | 15 | 22 | 0% | 59% | | | | | | | | | | | | |
| 19 | 16 | 13 | 0% | 59% | | | | | | | | | | | | |
| 20 | 17 | 22 | 0% | 59% | | | | | | | | | | | | |
| 21 | 18 | 20 | 0% | 59% | | | | | | | | | | | | |
| 22 | 19 | 14 | 0% | 59% | | | | | | | | | | | | |
| 23 | 20 | 24 | 0% | 59% | | | | | | | | | | | | |
| 24 | 21 | 30 | 0% | 60% | | | | | | | | | | | | |
| 25 | 22 | 23 | 0% | 60% | | | | | | | | | | | | |
| 26 | 23 | 37 | 0% | 60% | | | | | | | | | | | | |
| 27 | 24 | 32 | 0.00120691 | 60% | | | | | | | | | | | | |

SCAN(initial_value, **array**, function)

Cumulative sum: dynamic method.

='Lesson3-Gambaro-BoomerangDataset.xlsx'!drng_fre
='Lesson3-Gambaro-BoomerangDataset.xlsx'!drng_dis
='Lesson3-Gambaro-BoomerangDataset.xlsx'!drng_fre

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Name Manager | Define Name | Use in Formula | Create from Selection — Defined Names

Trace Precedents | Trace Dependents | Remove Arrows | Show Formulas | Error Checking | Evaluate Formula — Formula Auditing

Watch Window

Calculation Options | Calculate Now | Calculate Sheet — Calculation

SUM | =SCAN()

| | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | **Analysis Categorical Variables** | TRUE | | | | | | | | | | | | | | |
| 2 | | 26514 | | | | | | | | | | | | | | |
| 3 | Quantity | Frequencies | Perc | | | | | | | | | | | | | |
| 4 | 1 | 3630 | | | | | | | | | | ='Lesson3-Gambaro-BoomerangDataset.xlsx'!drng_fre | | | | |
| 5 | 2 | 3624 | | | | | | | | | | ='Lesson3-Gambaro-BoomerangDataset.xlsx'!drng_dis | | | | |
| 6 | 3 | 2271 | | | | | | | | | | ='Lesson3-Gambaro-BoomerangDataset.xlsx'!drng_fre | | | | |
| 7 | 4 | 1528 | | | | | | | | | | | | | | |
| 8 | 5 | 1320 | | | | | | | | | | =LAMBDA(x,y,x+y)(C4,C5) | | | | |
| 9 | 6 | 1371 | | | | | | | | | | | | | | |
| 10 | 7 | 982 | | | | | | | | | | =SCAN() | | | | |
| 11 | 8 | 470 | | | | | | | | | | | | | | |
| 12 | 9 | 372 | | | | | | | | | | | | | | |
| 13 | 10 | 19 | | | | | | | | | | | | | | |
| 14 | 11 | 19 | | | | | | | | | | | | | | |
| 15 | 12 | 25 | | | | | | | | | | | | | | |
| 16 | 13 | 16 | | | | | | | | | | | | | | |
| 17 | 14 | 11 | 0% | 59% | | | | | | | | | | | | |
| 18 | 15 | 22 | 0% | 59% | | | | | | | | | | | | |
| 19 | 16 | 13 | 0% | 59% | | | | | | | | | | | | |
| 20 | 17 | 22 | 0% | 59% | | | | | | | | | | | | |
| 21 | 18 | 20 | 0% | 59% | | | | | | | | | | | | |
| 22 | 19 | 14 | 0% | 59% | | | | | | | | | | | | |
| 23 | 20 | 24 | 0% | 59% | | | | | | | | | | | | |
| 24 | 21 | 30 | 0% | 60% | | | | | | | | | | | | |
| 25 | 22 | 23 | 0% | 60% | | | | | | | | | | | | |
| 26 | 23 | 37 | 0% | 60% | | | | | | | | | | | | |
| 27 | 24 | 32 | 0.00120691 | 60% | | | | | | | | | | | | |

Function Arguments

SCAN

Initial_value = any

Array = reference

Function = any

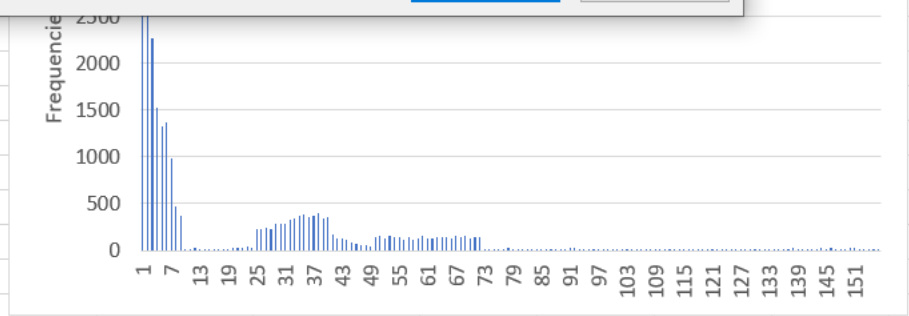
=

Scans an array by applying a LAMBDA function to each value and returns an array that has each intermediate value.

**Initial_value** is the the starting value for the accumulator.

Formula result =

Help on this function | OK | Cancel




Sales Data | Analysis categorical | Analysis Quant Discr | Sheet1

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Name Manager | Define Name | Use in Formula | Create from Selection — Defined Names

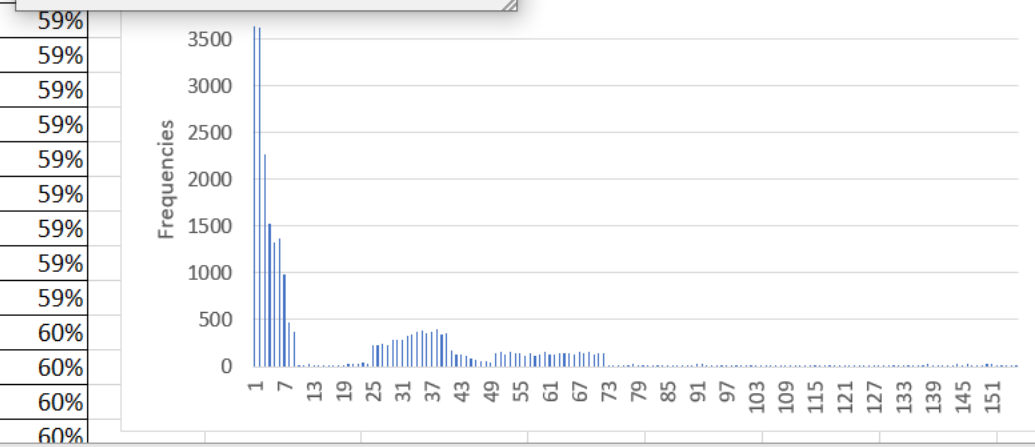
Trace Precedents | Trace Dependents | Remove Arrows | Show Formulas | Error Checking | Evaluate Formula — Formula Auditing

Watch Window

Calculation Options | Calculate Now | Calculate Sheet — Calculation

K8

| | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | **Analysis Quant. Discr.Variables** | TRUE | | | | | | | | | | | | | | |
| 2 | | 26514 | 100% | | | | | | | | | | | | | |
| 3 | Quantity | Frequencies | Percentage Freq. | Cumulative Perc. Freq. | | Quant. Discr. | Column Index | | | | | | | | | |
| 4 | 1 | 3630 | 14% | | | | | | | | ='Lesson3-Gambaro-BoomerangDataset.xlsx'!drng_freqdiscr | | | | | |
| 5 | 2 | 3624 | 14% | | | | | | | | ='Lesson3-Gambaro-BoomerangDataset.xlsx'!drng_discr | | | | | |
| 6 | 3 | 2271 | 9% | | | | | | | | ='Lesson3-Gambaro-BoomerangDataset.xlsx'!drng_freqreldiscr | | | | | |
| 7 | 4 | 1528 | 6% | | | | | | | | ='Lesson3-Gambaro-BoomerangDataset.xlsx'!drng_freqcumdiscr | | | | | |
| 8 | 5 | 1320 | 5% | | | | | | | | | | | | | |
| 9 | 6 | 1371 | 5% | | | | | | | | =LAMBDA(x,y,x+y)(C4,C5) | | | | | |
| 10 | 7 | 982 | 4% | | | | | | | | | | | | | |
| 11 | 8 | 470 | 2% | | | | | | | | | | | | | |
| 12 | 9 | 372 | 1% | | | | | | | | | | | | | |
| 13 | 10 | 19 | 0% | | | | | | | | | | | | | |
| 14 | 11 | 19 | 0% | | | | | | | | | | | | | |
| 15 | 12 | 25 | 0% | 59% | | | | | | | | | | | | |
| 16 | 13 | 16 | 0% | 59% | | | | | | | | | | | | |
| 17 | 14 | 11 | 0% | 59% | | | | | | | | | | | | |
| 18 | 15 | 22 | 0% | 59% | | | | | | | | | | | | |
| 19 | 16 | 13 | 0% | 59% | | | | | | | | | | | | |
| 20 | 17 | 22 | 0% | 59% | | | | | | | | | | | | |
| 21 | 18 | 20 | 0% | 59% | | | | | | | | | | | | |
| 22 | 19 | 14 | 0% | 59% | | | | | | | | | | | | |
| 23 | 20 | 24 | 0% | 59% | | | | | | | | | | | | |
| 24 | 21 | 30 | 0% | 60% | | | | | | | | | | | | |
| 25 | 22 | 23 | 0% | 60% | | | | | | | | | | | | |
| 26 | 23 | 37 | 0% | 60% | | | | | | | | | | | | |
| 27 | 24 | 32 | 0% | 60% | | | | | | | | | | | | |




New Name

Name: drng_freqcumdiscr

Scope: Workbook

Comment:

Refers to: ='Analysis Quant Discr'!$D$4#

OK | Cancel

Add a new dynamic named range: «drng_freqcumdiscr».

Sales Data | Analysis categorical | Analysis Quant Discr | Sheet1

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Name Manager | Define Name | Use in Formula | Create from Selection — Defined Names

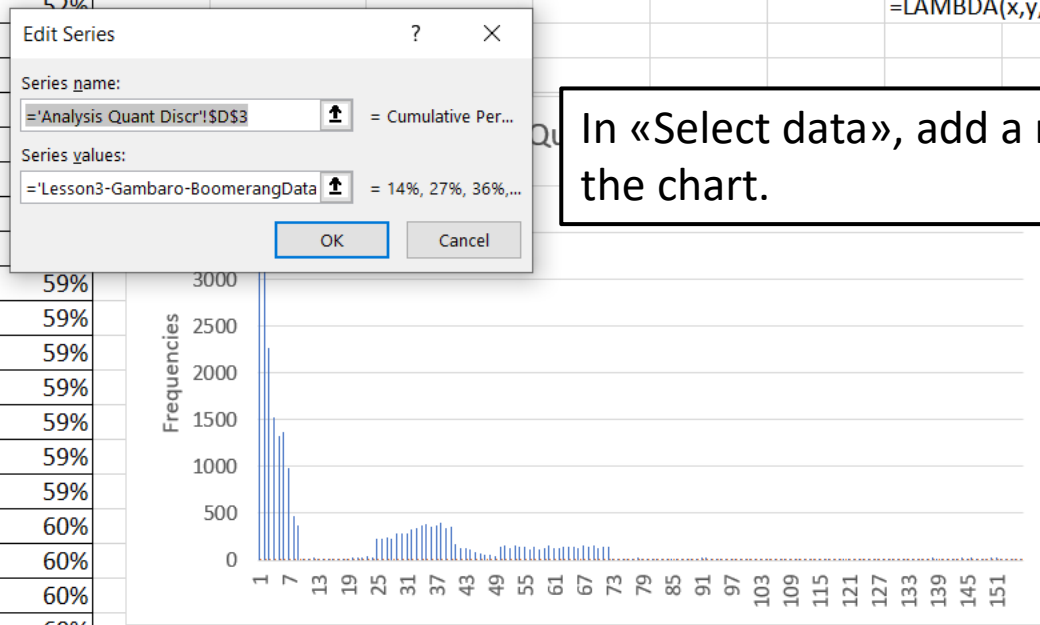
Trace Precedents | Trace Dependents | Remove Arrows | Show Formulas | Error Checking | Evaluate Formula — Formula Auditing

Watch Window

Calculation Options | Calculate Now | Calculate Sheet — Calculation

D3

| | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3 | Quantity | Frequencies | Percentage Freq. | Cumulative Perc. Freq. | | Quant. Discr. | Column Index | | | | | | | | | |
| 4 | 1 | 3630 | 14% | 14% | | Quantity | 5 | | | | ='Lesson3-Gambaro-BoomerangDataset.xlsx'!drng_freqdiscr | | | | | |
| 5 | 2 | 3624 | 14% | 27% | | | | | | | ='Lesson3-Gambaro-BoomerangDataset.xlsx'!drng_discr | | | | | |
| 6 | 3 | 2271 | 9% | 36% | | | | | | | ='Lesson3-Gambaro-BoomerangDataset.xlsx'!drng_freqreldiscr | | | | | |
| 7 | 4 | 1528 | 6% | 42% | | | | | | | ='Lesson3-Gambaro-BoomerangDataset.xlsx'!drng_freqcumdiscr | | | | | |
| 8 | 5 | 1320 | 5% | 47% | | | | | | | | | | | | |
| 9 | 6 | 1371 | 5% | 52% | | | | | | | =LAMBDA(x,y,x+y)(C4,C5) | | | | | |
| 10 | 7 | 982 | 4% | | | | | | | | | | | | | |
| 11 | 8 | 470 | 2% | | | | | | | | | | | | | |
| 12 | 9 | 372 | 1% | | | | | | | | | | | | | |
| 13 | 10 | 19 | 0% | | | | | | | | | | | | | |
| 14 | 11 | 19 | 0% | | | | | | | | | | | | | |
| 15 | 12 | 25 | 0% | | | | | | | | | | | | | |
| 16 | 13 | 16 | 0% | | | | | | | | | | | | | |
| 17 | 14 | 11 | 0% | 59% | | | | | | | | | | | | |
| 18 | 15 | 22 | 0% | 59% | | | | | | | | | | | | |
| 19 | 16 | 13 | 0% | 59% | | | | | | | | | | | | |
| 20 | 17 | 22 | 0% | 59% | | | | | | | | | | | | |
| 21 | 18 | 20 | 0% | 59% | | | | | | | | | | | | |
| 22 | 19 | 14 | 0% | 59% | | | | | | | | | | | | |
| 23 | 20 | 24 | 0% | 59% | | | | | | | | | | | | |
| 24 | 21 | 30 | 0% | 60% | | | | | | | | | | | | |
| 25 | 22 | 23 | 0% | 60% | | | | | | | | | | | | |
| 26 | 23 | 37 | 0% | 60% | | | | | | | | | | | | |
| 27 | 24 | 32 | 0% | 60% | | | | | | | | | | | | |
| 28 | 25 | 231 | 1% | 61% | | | | | | | | | | | | |
| 29 | 26 | 224 | 1% | 62% | | | | | | | | | | | | |




In «Select data», add a new serie to the chart.

Sales Data | Analysis categorical | Analysis Quant Discr | Sheet1

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Name Manager | Define Name | Use in Formula | Create from Selection — Defined Names

Trace Precedents | Trace Dependents | Remove Arrows | Show Formulas | Error Checking | Evaluate Formula — Formula Auditing

Calculate Now

Fill | Outline | Chart Area

Chart 1 | fx

| | A | B | C | D | E | F | G | H | I | J | N | O | P |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3 | Quantity | Frequencies | Percentage Freq. | Cumulative Perc. Freq. | | Quant. Discr. | Column Index | | | | | | |
| 4 | 1 | 3630 | 14% | 14% | | Quantity | 5 | | | | angDataset.xlsx'!drng_freqdiscr | | |
| 5 | 2 | 3624 | 14% | 27% | | | | | | | angDataset.xlsx'!drng_discr | | |
| 6 | 3 | 2271 | 9% | 36% | | | | | | | angDataset.xlsx'!drng_freqreldiscr | | |
| 7 | 4 | 1528 | 6% | 42% | | | | | | | angDataset.xlsx'!drng_freqcumdiscr | | |
| 8 | 5 | 1320 | 5% | 47% | | | | | | | | | |
| 9 | 6 | 1371 | 5% | 52% | | | | | | | | | |
| 10 | 7 | 982 | 4% | 56% | | | | | | | | | |
| 11 | 8 | 470 | 2% | 57% | | | | | | | | | |
| 12 | 9 | 372 | 1% | 59% | | | | | | | | | |
| 13 | 10 | 19 | 0% | 59% | | | | | | | | | |
| 14 | 11 | 19 | 0% | 59% | | | | | | | | | |
| 15 | 12 | 25 | 0% | 59% | | | | | | | | | |
| 16 | 13 | 16 | 0% | 59% | | | | | | | | | |
| 17 | 14 | 11 | 0% | 59% | | | | | | | | | |
| 18 | 15 | 22 | 0% | 59% | | | | | | | | | |
| 19 | 16 | 13 | 0% | 59% | | | | | | | | | |
| 20 | 17 | 22 | 0% | 59% | | | | | | | | | |
| 21 | 18 | 20 | 0% | 59% | | | | | | | | | |
| 22 | 19 | 14 | 0% | 59% | | | | | | | | | |
| 23 | 20 | 24 | 0% | 59% | | | | | | | | | |
| 24 | 21 | 30 | 0% | 60% | | | | | | | | | |
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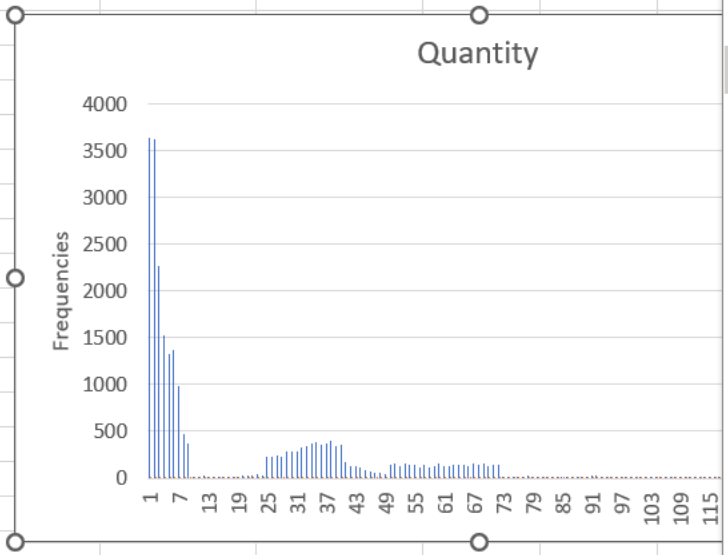
| 27 | 24 | 32 | 0% | 60% | | | | | | | | | |
| 28 | 25 | 231 | 1% | 61% | | | | | | | | | |
| 29 | 26 | 224 | 1% | 62% | | | | | | | | | |

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- Group
- Bring to Front
- Send to Back
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- Assign Macro...
- View Alt Text...
- Format Chart Area...
- PivotChart Options...

Sales Data | Analysis categorical | Analysis Quant Discr | Sheet1

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Function Library | Calculation

Chart 1

| | A | B | C |
|---|---|---|---|
| 3 | Quantity | Frequencies | Percentage Freq. |
| 4 | 1 | 3630 | 14% |
| 5 | 2 | 3624 | 14% |
| 6 | 3 | 2271 | 9% |
| 7 | 4 | 1528 | 6% |
| 8 | 5 | 1320 | 5% |
| 9 | 6 | 1371 | 5% |
| 10 | 7 | 982 | 4% |
| 11 | 8 | 470 | 2% |
| 12 | 9 | 372 | 1% |
| 13 | 10 | 19 | 0% |
| 14 | 11 | 19 | 0% |
| 15 | 12 | 25 | 0% |
| 16 | 13 | 16 | 0% |
| 17 | 14 | 11 | 0% |
| 18 | 15 | 22 | 0% |
| 19 | 16 | 13 | 0% |
| 20 | 17 | 22 | 0% |
| 21 | 18 | 20 | 0% |
| 22 | 19 | 14 | 0% |
| 23 | 20 | 24 | 0% |
| 24 | 21 | 30 | 0% |
| 25 | 22 | 23 | 0% |
| 26 | 23 | 37 | 0% |
| 27 | 24 | 32 | 0% |
| 28 | 25 | 231 | 1% |
| 29 | 26 | 224 | 1% |

| | |
|---|---|
| | 60% |
| | 60% |
| | 61% |
| | 62% |

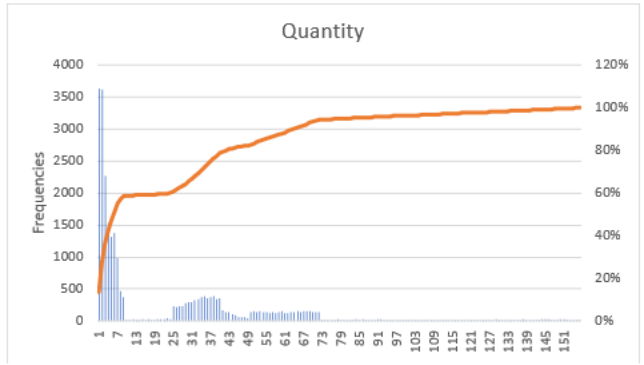
| | K | L | M | N | O | P |
|---|---|---|---|---|---|---|
| | ='Lesson3-Gambaro-BoomerangDataset.xlsx'!drng_freqdiscr | | | | | |
| | ='Lesson3-Gambaro-BoomerangDataset.xlsx'!drng_discr | | | | | |
| | ='Lesson3-Gambaro-BoomerangDataset.xlsx'!drng_freqreldiscr | | | | | |
| | ='Lesson3-Gambaro-BoomerangDataset.xlsx'!drng_freqcumdiscr | | | | | |
| | =LAMBDA(x,y,x+y)(C4,C5) | | | | | |

Change Chart Type

Recommended Charts | All Charts

Recent
Templates
Column
Line
Pie
Bar
Area
X Y (Scatter)
Stock
Surface
Radar
Treemap
Sunburst
Histogram
Box & Whisker
Waterfall
Funnel
Combo

Custom Combination




Choose the chart type and axis for your data series:

| Series Name | Chart Type | Secondary Axis |
|---|---|---|
| Frequencies | Clustered Column | ☐ |
| Cumulative Perc. Freq. | Line | ☑ |

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Sales Data | Analysis categorical | Analysis Quant Discr | Sheet1

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Name Manager | Define Name | Use in Formula | Create from Selection — Defined Names

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Watch Window

Calculation Options | Calculate Now | Calculate Sheet — Calculation

N18

| | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
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| 14 | 11 | 19 | 0% | 59% | | | | | | | | | | | | |
| 15 | 12 | 25 | 0% | 59% | | | | | | | | | | | | |
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| 26 | 23 | 37 | 0% | 60% | | | | | | | | | | | | |
| 27 | 24 | 32 | 0% | 60% | | | | | | | | | | | | |
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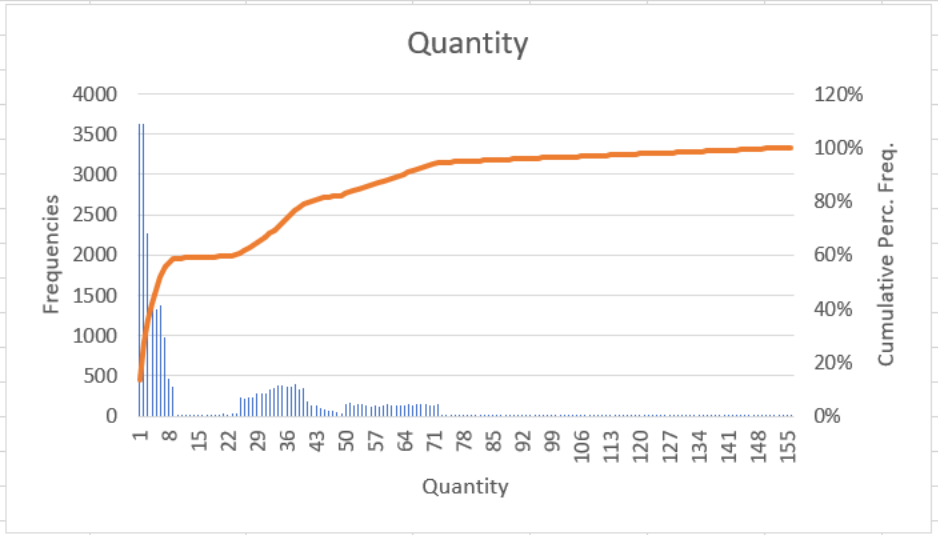
| 29 | 26 | 224 | 1% | 62% | | | | | | | | | | | | |




Sales Data | Analysis categorical | Analysis Quant Discr | Sheet1

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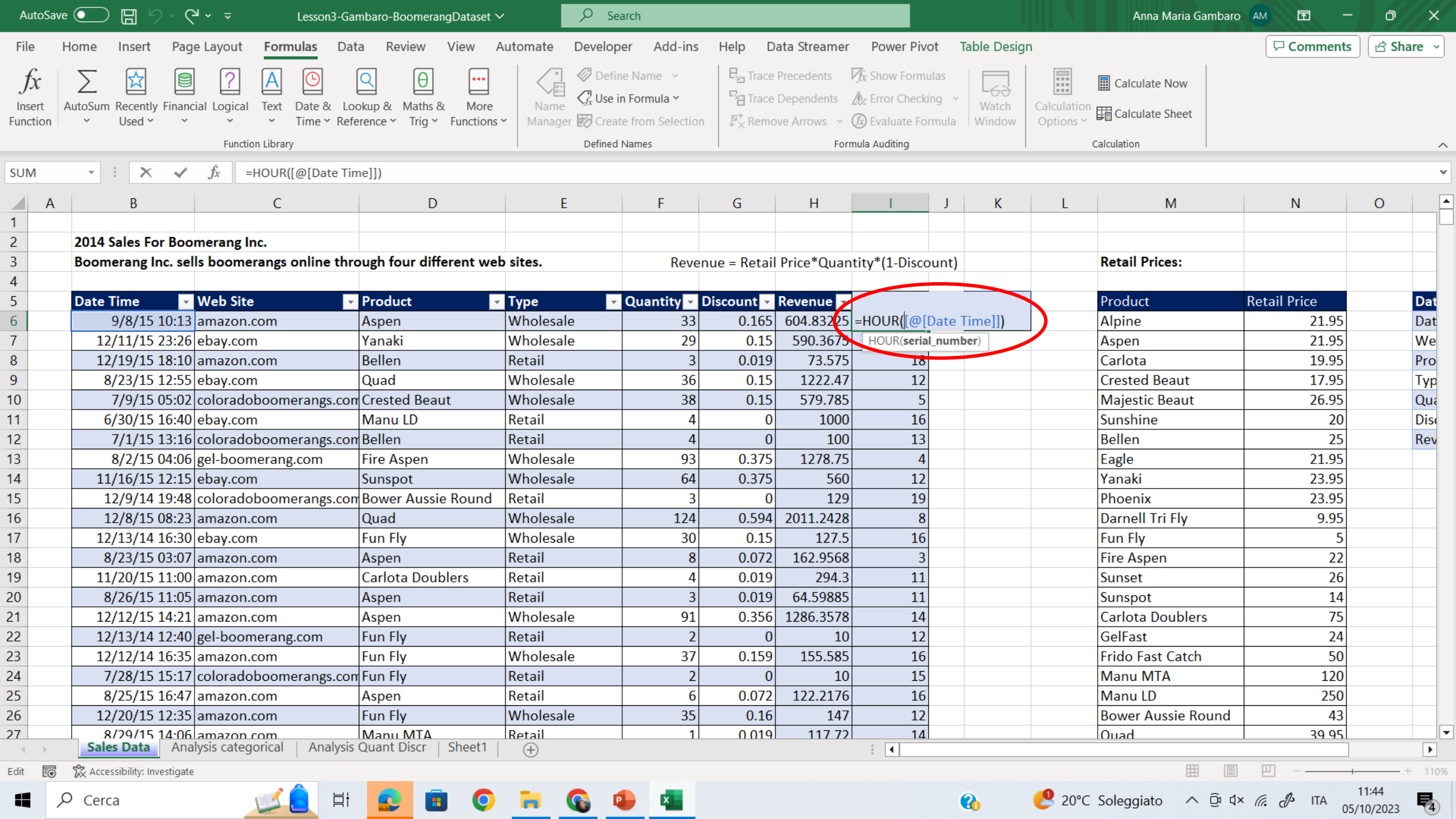
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Text
Date & Time
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Maths & Trig
More Functions
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Name Manager
Define Name
Use in Formula
Create from Selection
Defined Names
Trace Precedents
Trace Dependents
Remove Arrows
Show Formulas
Error Checking
Evaluate Formula
Formula Auditing
Watch Window
Calculation Options
Calculate Now
Calculate Sheet
Calculation
SUM
=HOUR([@[Date Time]])
2014 Sales For Boomerang Inc.
Boomerang Inc. sells boomerangs online through four different web sites.
Revenue = Retail Price*Quantity*(1-Discount)
Retail Prices:
Date Time
Web Site
Product
Type
Quantity
Discount
Revenue
=HOUR([@[Date Time]])
HOUR(serial_number)
9/8/15 10:13 amazon.com Aspen Wholesale 33 0.165 604.83225
12/11/15 23:26 ebay.com Yanaki Wholesale 29 0.15 590.3675
12/19/15 18:10 amazon.com Bellen Retail 3 0.019 73.575 18
8/23/15 12:55 ebay.com Quad Wholesale 36 0.15 1222.47 12
7/9/15 05:02 coloradoboomerangs.com Crested Beaut Wholesale 38 0.15 579.785 5
6/30/15 16:40 ebay.com Manu LD Retail 4 0 1000 16
7/1/15 13:16 coloradoboomerangs.com Bellen Retail 4 0 100 13
8/2/15 04:06 gel-boomerang.com Fire Aspen Wholesale 93 0.375 1278.75 4
11/16/15 12:15 ebay.com Sunspot Wholesale 64 0.375 560 12
12/9/14 19:48 coloradoboomerangs.com Bower Aussie Round Retail 3 0 129 19
12/8/15 08:23 amazon.com Quad Wholesale 124 0.594 2011.2428 8
12/13/14 16:30 ebay.com Fun Fly Wholesale 30 0.15 127.5 16
8/23/15 03:07 amazon.com Aspen Retail 8 0.072 162.9568 3
11/20/15 11:00 amazon.com Carlota Doublers Retail 4 0.019 294.3 11
8/26/15 11:05 amazon.com Aspen Retail 3 0.019 64.59885 11
12/12/15 14:21 amazon.com Aspen Wholesale 91 0.356 1286.3578 14
12/13/14 12:40 gel-boomerang.com Fun Fly Retail 2 0 10 12
12/12/14 16:35 amazon.com Fun Fly Wholesale 37 0.159 155.585 16
7/28/15 15:17 coloradoboomerangs.com Fun Fly Retail 2 0 10 15
8/25/15 16:47 amazon.com Aspen Retail 6 0.072 122.2176 16
12/20/15 12:35 amazon.com Fun Fly Wholesale 35 0.16 147 12
8/29/15 14:06 amazon.com Manu MTA Retail 1 0.019 117.72 14
Product
Retail Price
Alpine 21.95
Aspen 21.95
Carlota 19.95
Crested Beaut 17.95
Majestic Beaut 26.95
Sunshine 20
Bellen 25
Eagle 21.95
Yanaki 23.95
Phoenix 23.95
Darnell Tri Fly 9.95
Fun Fly 5
Fire Aspen 22
Sunset 26
Sunspot 14
Carlota Doublers 75
GelFast 24
Frido Fast Catch 50
Manu MTA 120
Manu LD 250
Bower Aussie Round 43
Quad 39.95
Sales Data
Analysis categorical
Analysis Quant Discr
Sheet1
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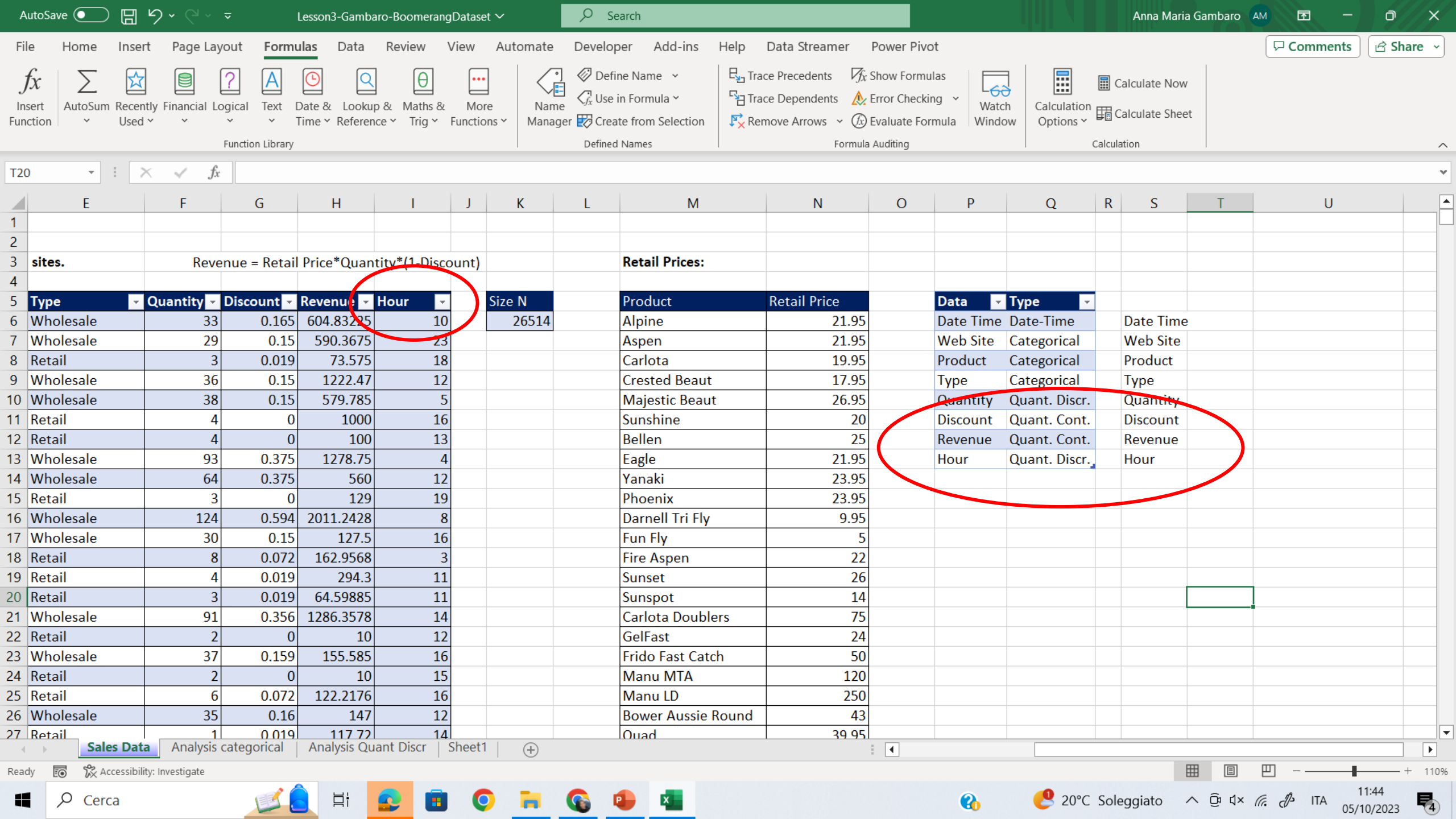
05/10/2023



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Insert Function | AutoSum | Recently Used | Financial | Logical | Text | Date & Time | Lookup & Reference | Maths & Trig | More Functions — Function Library

Name Manager | Define Name | Use in Formula | Create from Selection — Defined Names

Trace Precedents | Trace Dependents | Remove Arrows | Show Formulas | Error Checking | Evaluate Formula — Formula Auditing

Watch Window

Calculation Options | Calculate Now | Calculate Sheet — Calculation

T20

**sites.** Revenue = Retail Price*Quantity*(1-Discount)

| Type | Quantity | Discount | Revenue | Hour |
|---|---|---|---|---|
| Wholesale | 33 | 0.165 | 604.83225 | 10 |
| Wholesale | 29 | 0.15 | 590.3675 | 23 |
| Retail | 3 | 0.019 | 73.575 | 18 |
| Wholesale | 36 | 0.15 | 1222.47 | 12 |
| Wholesale | 38 | 0.15 | 579.785 | 5 |
| Retail | 4 | 0 | 1000 | 16 |
| Retail | 4 | 0 | 100 | 13 |
| Wholesale | 93 | 0.375 | 1278.75 | 4 |
| Wholesale | 64 | 0.375 | 560 | 12 |
| Retail | 3 | 0 | 129 | 19 |
| Wholesale | 124 | 0.594 | 2011.2428 | 8 |
| Wholesale | 30 | 0.15 | 127.5 | 16 |
| Retail | 8 | 0.072 | 162.9568 | 3 |
| Retail | 4 | 0.019 | 294.3 | 11 |
| Retail | 3 | 0.019 | 64.59885 | 11 |
| Wholesale | 91 | 0.356 | 1286.3578 | 14 |
| Retail | 2 | 0 | 10 | 12 |
| Wholesale | 37 | 0.159 | 155.585 | 16 |
| Retail | 2 | 0 | 10 | 15 |
| Retail | 6 | 0.072 | 122.2176 | 16 |
| Wholesale | 35 | 0.16 | 147 | 12 |
| Retail | 1 | 0.019 | 117.72 | 14 |

| Size N |
|---|
| 26514 |

**Retail Prices:**

| Product | Retail Price |
|---|---|
| Alpine | 21.95 |
| Aspen | 21.95 |
| Carlota | 19.95 |
| Crested Beaut | 17.95 |
| Majestic Beaut | 26.95 |
| Sunshine | 20 |
| Bellen | 25 |
| Eagle | 21.95 |
| Yanaki | 23.95 |
| Phoenix | 23.95 |
| Darnell Tri Fly | 9.95 |
| Fun Fly | 5 |
| Fire Aspen | 22 |
| Sunset | 26 |
| Sunspot | 14 |
| Carlota Doublers | 75 |
| GelFast | 24 |
| Frido Fast Catch | 50 |
| Manu MTA | 120 |
| Manu LD | 250 |
| Bower Aussie Round | 43 |
| Quad | 39.95 |

| Data | Type |
|---|---|
| Date Time | Date-Time |
| Web Site | Categorical |
| Product | Categorical |
| Type | Categorical |
| Quantity | Quant. Discr. |
| Discount | Quant. Cont. |
| Revenue | Quant. Cont. |
| Hour | Quant. Discr. |

| |
|---|
| Date Time |
| Web Site |
| Product |
| Type |
| Quantity |
| Discount |
| Revenue |
| Hour |

Sales Data | Analysis categorical | Analysis Quant Discr | Sheet1

Ready | Accessibility: Investigate | 110%

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Insert Function | AutoSum | Recently Used | Financial | Logical | Text | Date & Time | Lookup & Reference | Maths & Trig | More Functions — Function Library

Name Manager | Define Name | Use in Formula | Create from Selection — Defined Names

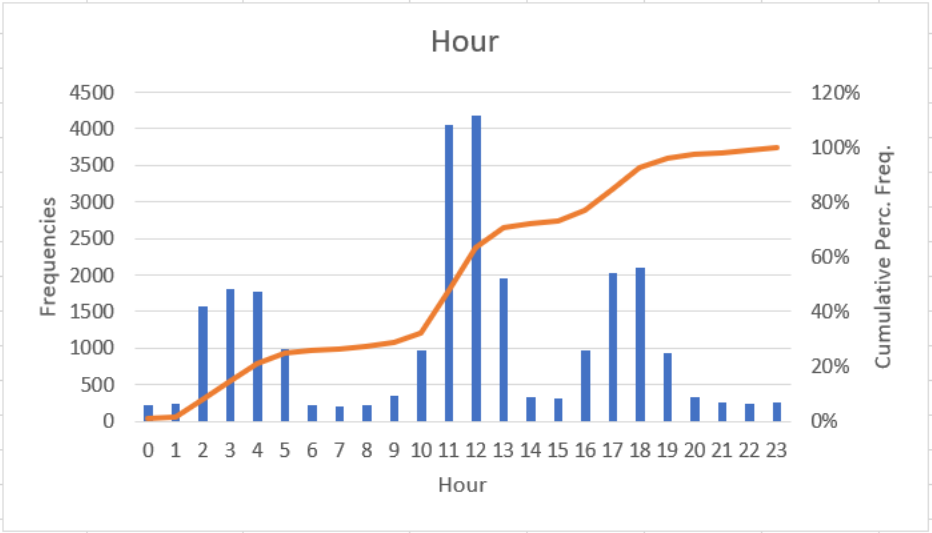
Trace Precedents | Trace Dependents | Remove Arrows | Show Formulas | Error Checking | Evaluate Formula — Formula Auditing

Watch Window

Calculation Options | Calculate Now | Calculate Sheet — Calculation

A3 | Hour

| | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | **Analysis Quant. Discr.Variables** | TRUE | | | | | | | | | | | | | | |
| 2 | | 26514 | 100% | | | | | | | | | | | | | |
| 3 | Hour | equencies | Percentage Freq. | Cumulative Perc. Freq. | | Quant. Discr. | Column Index | | | | | | | | | |
| 4 | 0 | 219 | 1% | 1% | | Quantity | 8 | | | | ='Lesson3-Gambaro-BoomerangDataset.xlsx'!drng_freqdiscr | | | | | |
| 5 | 1 | 234 | 1% | 2% | | Hour | | | | | ='Lesson3-Gambaro-BoomerangDataset.xlsx'!drng_discr | | | | | |
| 6 | 2 | 1579 | 6% | 8% | | | | | | | ='Lesson3-Gambaro-BoomerangDataset.xlsx'!drng_freqreldiscr | | | | | |
| 7 | 3 | 1811 | 7% | 14% | | | | | | | ='Lesson3-Gambaro-BoomerangDataset.xlsx'!drng_freqcumdiscr | | | | | |
| 8 | 4 | 1772 | 7% | 21% | | | | | | | | | | | | |
| 9 | 5 | 984 | 4% | 25% | | | | | | | =LAMBDA(x,y,x+y)(C4,C5) | | | | | |
| 10 | 6 | 226 | 1% | 26% | | | | | | | | | | | | |
| 11 | 7 | 210 | 1% | 27% | | | | | | | | | | | | |
| 12 | 8 | 213 | 1% | 27% | | | | | | | | | | | | |
| 13 | 9 | 341 | 1% | 29% | | | | | | | | | | | | |
| 14 | 10 | 966 | 4% | 32% | | | | | | | | | | | | |
| 15 | 11 | 4062 | 15% | 48% | | | | | | | | | | | | |
| 16 | 12 | 4172 | 16% | 63% | | | | | | | | | | | | |
| 17 | 13 | 1962 | 7% | 71% | | | | | | | | | | | | |
| 18 | 14 | 337 | 1% | 72% | | | | | | | | | | | | |
| 19 | 15 | 318 | 1% | 73% | | | | | | | | | | | | |
| 20 | 16 | 974 | 4% | 77% | | | | | | | | | | | | |
| 21 | 17 | 2024 | 8% | 84% | | | | | | | | | | | | |
| 22 | 18 | 2093 | 8% | 92% | | | | | | | | | | | | |
| 23 | 19 | 933 | 4% | 96% | | | | | | | | | | | | |
| 24 | 20 | 333 | 1% | 97% | | | | | | | | | | | | |
| 25 | 21 | 249 | 1% | 98% | | | | | | | | | | | | |
| 26 | 22 | 246 | 1% | 99% | | | | | | | | | | | | |
| 27 | 23 | 256 | 1% | 100% | | | | | | | | | | | | |




Sales Data | Analysis categorical | Analysis Quant Discr | Sheet1

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A1 ="Analysis " & G3 & " Variables"

| | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | ="Analysis " & G3 & " Variables" | | | | | | | | | | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | | | | | | | | | | | |
| 3 | Classes Upper Limits | Frequencies | Percentage Freq. | Cumulated Freq | Density of Freq | | Quant. Cont. | Column Index | | | Size | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | Max Value | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | Min Value | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | Number of classes | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | Range | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | | | | | | |
| 13 | | | | | | | | | | | Class width | | | | | | | | | | | |
| 14 | | | | | | | | | | | | | | | | | | | | | | |
| 15 | | | | | | | | | | | | | | | | | | | | | | |
| 16 | | | | | | | | | | | | | | | | | | | | | | |
| 17 | | | | | | | | | | | | | | | | | | | | | | |
| 18 | | | | | | | | | | | | | | | | | | | | | | |
| 19 | | | | | | | | | | | | | | | | | | | | | | |
| 20 | | | | | | | | | | | | | | | | | | | | | | |
| 21 | | | | | | | | | | | | | | | | | | | | | | |
| 22 | | | | | | | | | | | | | | | | | | | | | | |
| 23 | | | | | | | | | | | | | | | | | | | | | | |
| 24 | | | | | | | | | | | | | | | | | | | | | | |

Sales Data | Analysis categorical | Analysis Quant Discr | Analysis Quant Cont | Sheet1

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Get Data | From Text/CSV | From Web | From Table/Range | From Picture | Recent Sources | Existing Connections | Refresh All | Queries & Connections | Properties | Edit Links | Stocks | Currencies | Sort | Filter | Clear | Reapply | Advanced | Text to Columns | What-If Analysis | Forecast Sheet | Group | Ungroup | Subtotal | Solver | Data Analysis

Get & Transform Data | Queries & Connections | Data Types | Sort & Filter | Data Tools | Forecast | Outline | Analysis

A2 | Revenue

| | A | B | C | D | E | F | G | H | I | J | K |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | **Analysis Quant. Cont. Variables** | | | | | | | | | | |
| 2 | **Revenue** | | | | | | | | | | |
| 3 | **Classes Upper Limits** | **Frequencies** | **Percentage Freq.** | **Cumulated Freq** | **Density of Freq** | | **Quant. Cont.** | **Column Index** | | | **Size** |
| 4 | | | | | | | Discount | 7 | | | |
| 5 | | | | | | | Revenue | | | | **Max Value** |
| 6 | | | | | | | | | | | |
| 7 | | | | | | | | | | | **Min Value** |
| 8 | | | | | | | | | | | |
| 9 | | | | | | | | | | | **Number of classes** |
| 10 | | | | | | | | | | | |
| 11 | | | | | | | | | | | **Range** |
| 12 | | | | | | | | | | | |
| 13 | | | | | | | | | | | **Class width** |
| 14 | | | | | | | | | | | |
| 15 | | | | | | | | | | | |
| 16 | | | | | | | | | | | |
| 17 | | | | | | | | | | | |
| 18 | | | | | | | | | | | |
| 19 | | | | | | | | | | | |
| 20 | | | | | | | | | | | |
| 21 | | | | | | | | | | | |
| 22 | | | | | | | | | | | |
| 23 | | | | | | | | | | | |
| 24 | | | | | | | | | | | |

Data Validation

Settings | Input Message | Error Alert

Validation criteria

Allow: List | Ignore blank | In-cell drop-down

Data: between

Source: =$G$4#

Apply these changes to all other cells with the same settings

Clear All | OK | Cancel

Sales Data | Analysis categorical | Analysis Quant Discr | Analysis Quant Cont | Sheet1

Enter | Accessibility: Investigate

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Clipboard | Font | Alignment | Number | Styles | Cells | Editing | Analysis | Sensitivity | Add-ins | Excel Labs

S12

**Analysis Quant. Cont. Variables**

**Revenue**

| Classes Upper Limits | Frequencies | Percentage Freq. | Cumulated Freq | Density of Freq |
|---|---|---|---|---|

| Quant. Cont. | Column Index |
|---|---|
| Discount | 7 |
| Revenue | |

| Size |
|---|
| ='Sales Data'!K6 |
| **Max Value** |
| =MAX(INDEX(Tab_sales,,H4)) |
| **Min Value** |
| =MIN(INDEX(Tab_sales,,H4)) |
| **Number of classes** |
| =ROUND(LOG(K4,2),0) |
| **Range** |
| =(K6-K8) |
| **Class width** |
| =K12/K10 |

Sales Data | Analysis categorical | Analysis Quant Discr | Analysis Quant Cont | Sheet1

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Clipboard | Font | Alignment | Number | Styles | Cells | Editing | Analysis | Sensitivity | Add-ins | Excel Labs

SUM | =SEQUENCE(K10,1,K8+K14,K14)

| | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | **Analysis Quant. Cont. Variables** | | | | | | | | | | | | | | | | | | | | |
| 2 | **Revenue** | | | | | | | | | | | | | | | | | | | | |
| 3 | | | | **Cumulated Freq** | **Density of Freq** | | **Quant. Cont.** | **Column Index** | | | **Size** | | | | | | | | | | |
| 4 | =SEQUENCE(K10,1,K8+K14,K14) | | | | | | Discount | 7 | | | 26514 | | | | | | | | | | |
| | SEQUENCE(rows, [columns], [start], [step]) | | | | | | | | | | **Max Value** | | | | | | | | | | |
| 5 | 401.4 | | | | | | Revenue | | | | 2978.4 | | | | | | | | | | |
| 6 | 599.6 | | | | | | | | | | **Min Value** | | | | | | | | | | |
| 7 | 797.8 | | | | | | | | | | 4.9 | | | | | | | | | | |
| 8 | 996.1 | | | | | | | | | | **Number of classes** | | | | | | | | | | |
| 9 | 1194.3 | | | | | | | | | | 15 | | | | | | | | | | |
| 10 | 1392.5 | | | | | | | | | | **Range** | | | | | | | | | | |
| 11 | 1590.7 | | | | | | | | | | 2973.5 | | | | | | | | | | |
| 12 | 1789.0 | | | | | | | | | | **Class width** | | | | | | | | | | |
| 13 | 1987.2 | | | | | | | | | | 198.2 | | | | | | | | | | |
| 14 | 2185.4 | | | | | | | | | | | | | | | | | | | | |
| 15 | 2383.7 | | | | | | | | | | | | | | | | | | | | |
| 16 | 2581.9 | | | | | | | | | | | | | | | | | | | | |
| 17 | 2780.1 | | | | | | | | | | | | | | | | | | | | |
| 18 | 2978.4 | | | | | | | | | | | | | | | | | | | | |
| 19 | | | | | | | | | | | | | | | | | | | | | |
| 20 | | | | | | | | | | | | | | | | | | | | | |
| 21 | | | | | | | | | | | | | | | | | | | | | |

Sales Data | Analysis categorical | Analysis Quant Discr | **Analysis Quant Cont** | Sheet1

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Clipboard | Font | Alignment | Number | Styles | Cells | Editing | Analysis | Sensitivity | Add-ins | Excel Labs

SUM | =FREQUENCY(INDEX(Tab_sales,,H4),A4#)

**Analysis Quant. Cont. Variables**

| Revenue Classes Upper Limits | |
|---|---|
| 203.1 | =FREQUENCY(INDEX(Tab_sales,,H4),A4#) |
| 401.4 | 2423 |
| 599.6 | 1499 |
| 797.8 | 2008 |
| 996.1 | 1436 |
| 1194.3 | 932 |
| 1392.5 | 692 |
| 1590.7 | 414 |
| 1789.0 | 243 |
| 1987.2 | 113 |
| 2185.4 | 54 |
| 2383.7 | 57 |
| 2581.9 | 50 |
| 2780.1 | 20 |
| 2978.4 | 3 |
| | 0 |

FREQUENCY(data_array, bins_array)

| Quant. Cont. | Column Index |
|---|---|
| Discount | 7 |
| Revenue | |

| Size |
|---|
| 26514 |
| **Max Value** |
| 2978.4 |
| **Min Value** |
| 4.9 |
| **Number of classes** |
| 15 |
| **Range** |
| 2973.5 |
| **Class width** |
| 198.2 |

Sales Data | Analysis categorical | Analysis Quant Discr | Analysis Quant Cont | Sheet1

Edit | Accessibility: Investigate

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Paste | Clipboard | Font | Alignment | Number | Conditional Formatting | Format as Table | Cell Styles | Styles | Insert | Delete | Format | Cells | Sort & Filter | Find & Select | Editing | Analyse Data | Analysis | Sensitivity | Add-ins | Excel Labs

K14 =C4#/$K$14

| | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | **Analysis Quant. Cont. Variables** | | | | | | | | | | | | | | | | | | | | |
| 2 | **Revenue** | 26514 | | | | | | | | | | | | | | | | | | | |
| 3 | **Classes Upper Limits** | **Frequencies** | **Percentage Freq.** | **Cumulated Freq** | | | **Quant. Cont.** | **Column Index** | | | **Size** | | | | | | | | | | |
| 4 | 203.1 | 16570 | 62.50% | 62.50% | =C4#/$K$14 | | Discount | 7 | | | 26514 | | | | | | | | | | |
| 5 | 401.4 | 2423 | 9.14% | 71.63% | | | Revenue | | | | **Max Value** | | | | | | | | | | |
| 6 | 599.6 | 1499 | 5.65% | 77.29% | | | | | | | 2978.4 | | | | | | | | | | |
| 7 | 797.8 | 2008 | 7.57% | 84.86% | | | | | | | **Min Value** | | | | | | | | | | |
| 8 | 996.1 | 1436 | 5.42% | 90.28% | | | | | | | 4.9 | | | | | | | | | | |
| 9 | 1194.3 | 932 | 3.52% | 93.79% | | | | | | | **Number of classes** | | | | | | | | | | |
| 10 | 1392.5 | 692 | 2.61% | 96.40% | | | | | | | 15 | | | | | | | | | | |
| 11 | 1590.7 | 414 | 1.56% | 97.96% | | | | | | | **Range** | | | | | | | | | | |
| 12 | 1789.0 | 243 | 0.92% | 98.88% | | | | | | | 2973.5 | | | | | | | | | | |
| 13 | 1987.2 | 113 | 0.43% | 99.31% | | | | | | | **Class width** | | | | | | | | | | |
| 14 | 2185.4 | 54 | 0.20% | 99.51% | | | | | | | 198.2 | | | | | | | | | | |
| 15 | 2383.7 | 57 | 0.21% | 99.72% | | | | | | | | | | | | | | | | | |
| 16 | 2581.9 | 50 | 0.19% | 99.91% | | | | | | | | | | | | | | | | | |
| 17 | 2780.1 | 20 | 0.08% | 99.99% | | | | | | | | | | | | | | | | | |
| 18 | 2978.4 | 3 | 0.01% | 100.00% | | | | | | | | | | | | | | | | | |
| 19 | | 0 | 0.00% | 100.00% | | | | | | | | | | | | | | | | | |
| 20 | | | | | | | | | | | | | | | | | | | | | |
| 21 | | | | | | | | | | | | | | | | | | | | | |

Sales Data | Analysis categorical | Analysis Quant Discr | **Analysis Quant Cont** | Sheet1

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