

# GEGROEPEERDE Frequentietabellen in EXCEL

*Dit document bevat de instructies om GEGROEPEERDE frequentietabellen te maken met Microsoft Excel*

De invoergegevens vul je zelf in of kan je overnemen van een andere Excel spreadsheet

## GEGROEPEERDE TABELLEN

### Stap 1 : Opstellen van de gegroepeerde tabel

|  |                                                                    |          |     |      |        |        |
|--|--------------------------------------------------------------------|----------|-----|------|--------|--------|
|  |                                                                    |          |     |      | Start  |        |
|  | Gegroepeerde tabel met klassebreedte = 10 + HistogramKlassebreedte |          |     |      |        |        |
|  | Index                                                              | Kl       | afi | cafi | rfi    | crfi   |
|  | 1                                                                  | [95,105[ | 10  | 10   | 14,29% | 14,29% |

### Stap 2 : bepalen van de start index en klassen breedte van de gegroepeerde tabel

|  |                                                                    |     |      |        |        |       |
|--|--------------------------------------------------------------------|-----|------|--------|--------|-------|
|  |                                                                    |     |      |        | Start  | 95    |
|  | Gegroepeerde tabel met klassebreedte = 10 + HistogramKlassebreedte |     |      |        |        | 10    |
|  | Kl                                                                 | afi | cafi | rfi    | crfi   | Start |
|  | [95,105[                                                           | 10  | 10   | 14,29% | 14,29% | 95    |

### Stap 3 : bepalen van de start en eindes van de intervallen

|    |                                                                    |              |     |      |        |        |       |
|----|--------------------------------------------------------------------|--------------|-----|------|--------|--------|-------|
| fx |                                                                    | =O15         |     |      |        |        |       |
|    | I                                                                  | J            | K   | L    | M      | N      | O     |
|    | 139                                                                |              |     |      |        |        |       |
|    | 95                                                                 |              |     |      |        |        |       |
|    |                                                                    |              |     |      |        | Start  | 95    |
|    | Gegroepeerde tabel met klassebreedte = 10 + HistogramKlassebreedte |              |     |      |        |        | 10    |
|    | Index                                                              | Kl           | afi | cafi | rfi    | crfi   | Start |
|    | 1                                                                  | [95,105[     | 10  | 10   | 14,29% | 14,29% | 95    |
|    | 2                                                                  | [105,115[    | 24  | 34   | 34,29% | 48,57% | 105   |
| fx |                                                                    | =O18+\$O\$16 |     |      |        |        |       |
|    | I                                                                  | J            | K   | L    | M      | N      | O     |
|    | 139                                                                |              |     |      |        |        |       |
|    | 95                                                                 |              |     |      |        |        |       |
|    |                                                                    |              |     |      |        | Start  | 95    |
|    | Gegroepeerde tabel met klassebreedte = 10 + HistogramKlassebreedte |              |     |      |        |        | 10    |
|    | Index                                                              | Kl           | afi | cafi | rfi    | crfi   | Start |
|    | 1                                                                  | [95,105[     | 10  | 10   | 14,29% | 14,29% | 95    |
|    | 2                                                                  | [105,115[    | 24  | 34   | 34,29% | 48,57% | 105   |

|                             |                                                       |           |     |      |        |        |                  |
|-----------------------------|-------------------------------------------------------|-----------|-----|------|--------|--------|------------------|
| f <sub>x</sub> =O18+\$O\$16 |                                                       |           |     |      |        |        |                  |
|                             | I                                                     | J         | K   | L    | M      | N      | O                |
|                             | 139                                                   |           |     |      |        |        |                  |
|                             | 95                                                    |           |     |      |        |        |                  |
|                             |                                                       |           |     |      |        | Start  | 95               |
|                             | Gegroepeerde tabel met klassebreedte = 10 + Histogram |           |     |      |        |        | Klassebreedte 10 |
|                             | Index                                                 | KI        | afi | cafi | rfi    | crfi   | Start            |
|                             | 1                                                     | [95,105[  | 10  | 10   | 14,29% | 14,29% | 95               |
|                             | 2                                                     | [105,115[ | 24  | 34   | 34,29% | 48,57% | 105              |
|                             | 3                                                     | [115,125[ | 22  | 56   | 31,43% | 80,00% | 115              |

#### Stap 4 : bepalen van de Ki ( Klassen )

|                                    |                                                       |           |
|------------------------------------|-------------------------------------------------------|-----------|
| Uitlijning                         |                                                       |           |
| f <sub>x</sub> ="["&O18&","&P18&"] |                                                       |           |
|                                    | I                                                     | J         |
|                                    | Gegroepeerde tabel met klassebreedte = 10 + Histogram |           |
|                                    | Index                                                 | KI        |
|                                    | 1                                                     | [95,105[  |
|                                    | 2                                                     | [105,115[ |
|                                    | 3                                                     | [115,125[ |
|                                    | 4                                                     | [125,135[ |

#### Stap 5 : bepalen van de Afi

|                                                               |       |           |     |         |        |        |               |       |
|---------------------------------------------------------------|-------|-----------|-----|---------|--------|--------|---------------|-------|
| Uitlijning                                                    |       | Getal     |     | Stijlen |        |        |               |       |
| fx =AANTALLEN.ALS(IQTestInvoer;">="&O18;IQTestInvoer;"<"&P18) |       |           |     |         |        |        |               |       |
| H                                                             | I     | J         | K   | L       | M      | N      | O             | P     |
| Gegroepeerde tabel met klassebreedte = 10 + Histogram         |       |           |     |         |        |        | Klassebreedte | 10    |
|                                                               | Index | KI        | afi | cafi    | rfi    | crfi   | Start         | einde |
|                                                               | 1     | [95,105[  | 10  | 10      | 14,29% | 14,29% | 95            | 105   |
|                                                               | 2     | [105,115[ | 24  | 34      | 34,29% | 48,57% | 105           | 115   |
|                                                               | 3     | [115,125[ | 22  | 56      | 31,43% | 80,00% | 115           | 125   |

#### Stap 6 : CAFI / RFI / CRFI → zoals bij Enkelvoudige Tabellen

## ***DEEL 5 : HISTOGRAM***

*Zoals bij enkelvoudige tabellen*

**DEEL 6 : oplossen van vragen ( DIT ZIJN VOORBEELDEN !! )**

|                                                              |       |            |     |            |       |        |       |
|--------------------------------------------------------------|-------|------------|-----|------------|-------|--------|-------|
| bord                                                         |       | Lettertype |     | Uitlijning |       |        |       |
| G12                                                          |       | $f_x$      |     | =G32       |       |        |       |
| A                                                            | B     | C          | D   | E          | F     | G      |       |
|                                                              | 97    | 111        | 100 | 127        | 118   | 133    |       |
| Hoeveel % van de leerlingen heeft een IQ kleiner dan 109,5 ? |       |            |     |            |       | 27,14% | Aant  |
| Hoeveel % van de leerlingen heeft een IQ van minstens 124,5  |       |            |     |            |       | 18,57% | Maxir |
| Hoeveel leerlingen hebben een IQ van minstens 114,5 ?        |       |            |     |            |       | 36     | Minim |
| Enkelvoudige Frequentietabel + Frequentiekromme              |       |            |     |            |       |        |       |
|                                                              | index | xi         | afi | cafi       | rfi   | crfi   |       |
|                                                              | 1     | 95         | 1   | 1          | 1,43% | 1,43%  |       |
|                                                              | 2     | 96         | 0   | 1          | 0,00% | 1,43%  |       |
|                                                              | 3     | 97         | 1   | 2          | 1,43% | 2,86%  |       |
|                                                              | 4     | 98         | 1   | 3          | 1,43% | 4,29%  |       |
|                                                              | 5     | 99         | 1   | 4          | 1,43% | 5,71%  |       |
|                                                              | 6     | 100        | 2   | 6          | 2,86% | 8,57%  |       |
|                                                              | 7     | 101        | 0   | 6          | 0,00% | 8,57%  |       |
|                                                              | 8     | 102        | 1   | 7          | 1,43% | 10,00% |       |
|                                                              | 9     | 103        | 1   | 8          | 1,43% | 11,43% |       |
|                                                              | 10    | 104        | 2   | 10         | 2,86% | 14,29% |       |
|                                                              | 11    | 105        | 2   | 12         | 2,86% | 17,14% |       |
|                                                              | 12    | 106        | 1   | 13         | 1,43% | 18,57% |       |
|                                                              | 13    | 107        | 2   | 15         | 2,86% | 21,43% |       |
|                                                              | 14    | 108        | 2   | 17         | 2,86% | 24,29% |       |
|                                                              | 15    | 109        | 2   | 19         | 2,86% | 27,14% |       |
|                                                              | 16    | 110        | 3   | 22         | 4,29% | 31,43% |       |

|                                                |     |         |        |        |       |
|------------------------------------------------|-----|---------|--------|--------|-------|
| Lettertype                                     |     | Ontwerp |        |        |       |
| ▼                                              |     | $f_x$   | =1-G48 |        |       |
| C                                              | D   | E       | F      | G      |       |
| de leerlingen heeft een IQ kleiner dan 109,5 ? |     |         |        | 27,14% | Aant  |
| de leerlingen heeft een IQ van minstens 124,5  |     |         |        | 18,57% | Maxi  |
| en hebben een IQ van minstens 114,5 ?          |     |         |        | 36     | Minir |
| Frequentietabel + Frequentiekromme             |     |         |        |        |       |
| xi                                             | afi | cafi    | rfi    | crfi   |       |
| 95                                             | 1   | 1       | 1,43%  | 1,43%  |       |
| 96                                             | 0   | 1       | 0,00%  | 1,43%  |       |
| 97                                             | 1   | 2       | 1,43%  | 2,86%  |       |
| 98                                             | 1   | 3       | 1,43%  | 4,29%  |       |
| 99                                             | 1   | 4       | 1,43%  | 5,71%  |       |
| 100                                            | 2   | 6       | 2,86%  | 8,57%  |       |
| 101                                            | 0   | 6       | 0,00%  | 8,57%  |       |
| 102                                            | 1   | 7       | 1,43%  | 10,00% |       |
| 103                                            | 1   | 8       | 1,43%  | 11,43% |       |
| 104                                            | 2   | 10      | 2,86%  | 14,29% |       |
| 105                                            | 2   | 12      | 2,86%  | 17,14% |       |
| 106                                            | 1   | 13      | 1,43%  | 18,57% |       |
| 107                                            | 2   | 15      | 2,86%  | 21,43% |       |
| 108                                            | 2   | 17      | 2,86%  | 24,29% |       |
| 114                                            | 4   | 34      | 5,71%  | 48,57% |       |
| 115                                            | 2   | 36      | 2,86%  | 51,43% |       |
| 116                                            | 2   | 38      | 2,86%  | 54,29% |       |
| 117                                            | 2   | 40      | 2,86%  | 57,14% |       |
| 118                                            | 3   | 43      | 4,29%  | 61,43% |       |
| 119                                            | 3   | 46      | 4,29%  | 65,71% |       |
| 120                                            | 2   | 48      | 2,86%  | 68,57% |       |
| 121                                            | 1   | 49      | 1,43%  | 70,00% |       |
| 122                                            | 3   | 52      | 4,29%  | 74,29% |       |
| 123                                            | 2   | 54      | 2,86%  | 77,14% |       |
| 124                                            | 2   | 56      | 2,86%  | 80,00% |       |
| 125                                            | 1   | 57      | 1,43%  | 81,43% |       |
| 126                                            | 1   | 58      | 1,43%  | 82,86% |       |

|                                                 |                                                              |       |     |          |       |        |         |
|-------------------------------------------------|--------------------------------------------------------------|-------|-----|----------|-------|--------|---------|
| G14                                             |                                                              | $f_x$ |     | =I12-E37 |       |        |         |
| A                                               | B                                                            | C     | D   | E        | F     | G      | H       |
| 2                                               | Hoeveel % van de leerlingen heeft een IQ kleiner dan 109,5 ? |       |     |          |       | 27,14% | Aantal  |
| 3                                               | Hoeveel % van de leerlingen heeft een IQ van minstens 124,5  |       |     |          |       | 18,57% | Maximum |
| 4                                               | Hoeveel leerlingen hebben een IQ van minstens 114,5 ?        |       |     |          |       | 36     | Minimum |
| Enkelvoudige Frequentietabel + Frequentiekromme |                                                              |       |     |          |       |        |         |
|                                                 | index                                                        | xi    | afi | cafi     | rfi   | crfi   |         |
| 8                                               | 1                                                            | 95    | 1   | 1        | 1,43% | 1,43%  |         |
| 9                                               | 2                                                            | 96    | 0   | 1        | 0,00% | 1,43%  |         |
| 0                                               | 3                                                            | 97    | 1   | 2        | 1,43% | 2,86%  |         |
| 1                                               | 4                                                            | 98    | 1   | 3        | 1,43% | 4,29%  |         |
| 2                                               | 5                                                            | 99    | 1   | 4        | 1,43% | 5,71%  |         |
| 3                                               | 6                                                            | 100   | 2   | 6        | 2,86% | 8,57%  |         |
| 4                                               | 7                                                            | 101   | 0   | 6        | 0,00% | 8,57%  |         |
| 5                                               | 8                                                            | 102   | 1   | 7        | 1,43% | 10,00% |         |
| 6                                               | 9                                                            | 103   | 1   | 8        | 1,43% | 11,43% |         |
| 7                                               | 10                                                           | 104   | 2   | 10       | 2,86% | 14,29% |         |
| 8                                               | 11                                                           | 105   | 2   | 12       | 2,86% | 17,14% |         |
| 9                                               | 12                                                           | 106   | 1   | 13       | 1,43% | 18,57% |         |
| 0                                               | 13                                                           | 107   | 2   | 15       | 2,86% | 21,43% |         |
| 1                                               | 14                                                           | 108   | 2   | 17       | 2,86% | 24,29% |         |
| 7                                               | 20                                                           | 114   | 4   | 34       | 5,71% | 48,57% |         |
| 8                                               | 21                                                           | 115   | 2   | 36       | 2,86% | 51,43% |         |
| 9                                               | 22                                                           | 116   | 2   | 38       | 2,86% | 54,29% |         |