

# Formblätter

2. Dezember 2009

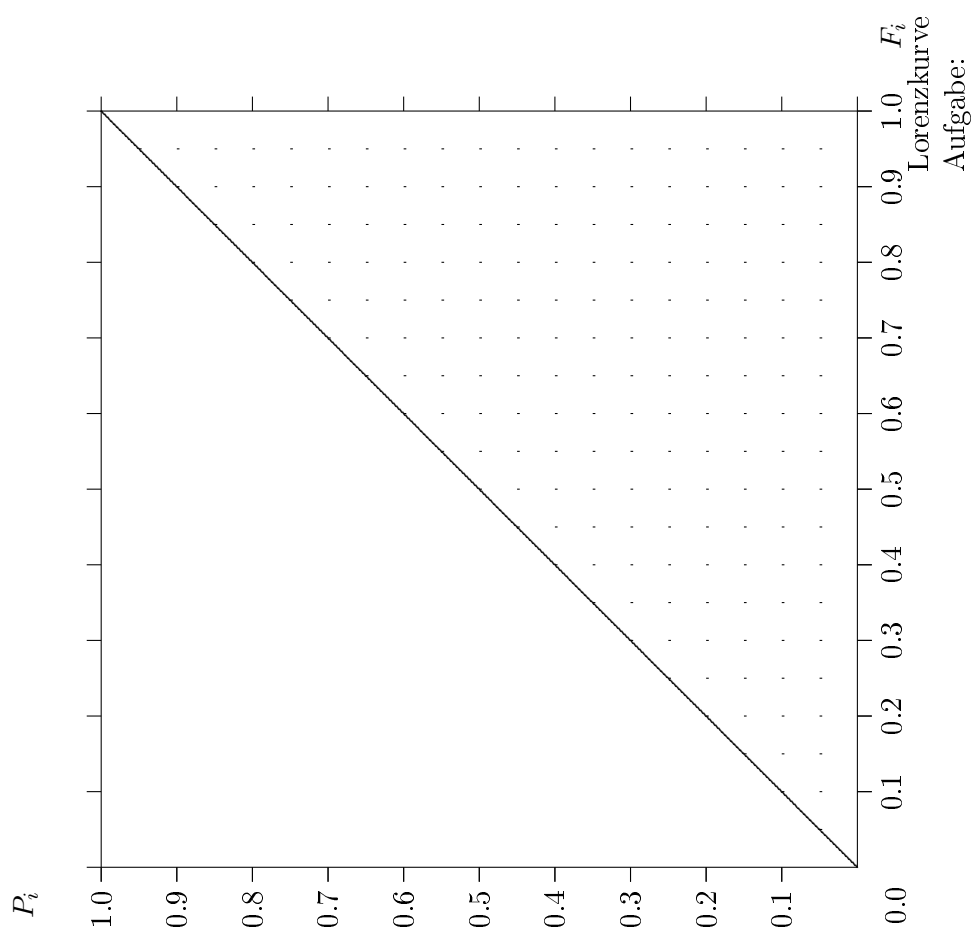


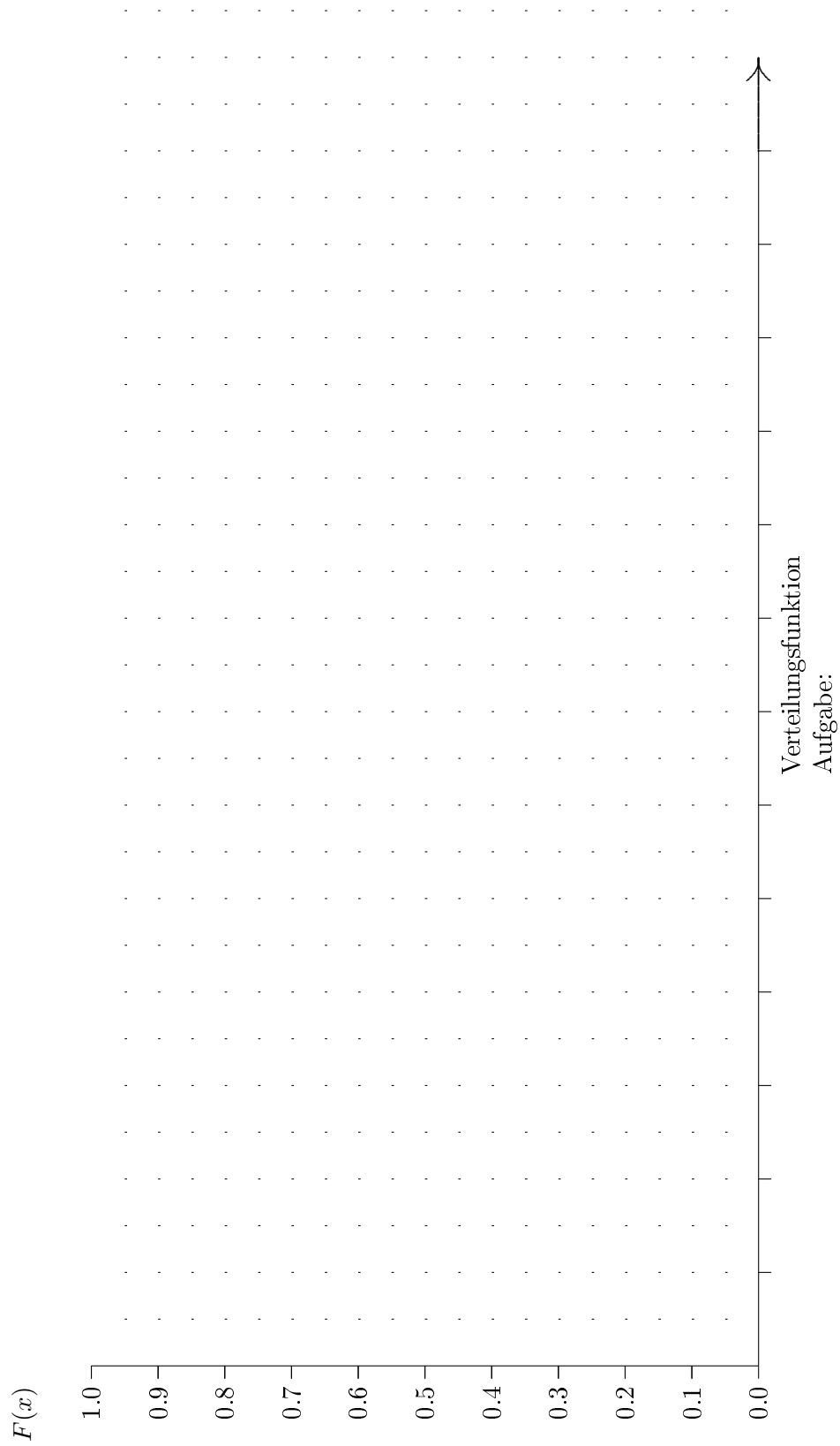
| Klasse   | K-Mitte | K-Delta         | abs.<br>Häufig | abs. Sum-<br>menhäufig | rel. Häufig | rel. Sum-<br>menhäufig |                  |                  |                      | Konz-<br>koeff. | Konz-<br>maß | Fl unt. LF |
|----------|---------|-----------------|----------------|------------------------|-------------|------------------------|------------------|------------------|----------------------|-----------------|--------------|------------|
| $x_i$    | $x_i'$  | $\triangle x_i$ | $h_i$          | $H_i$                  | $f_i$       | $F_i$                  | $x_i' \cdot f_i$ | $x_i' \cdot h_i$ | $(x_i')^2 \cdot h_i$ | $p_i$           | $P_i$        | $A(L)$     |
|          |         |                 |                |                        |             |                        |                  |                  |                      |                 |              |            |
|          |         |                 |                |                        |             |                        |                  |                  |                      |                 |              |            |
|          |         |                 |                |                        |             |                        |                  |                  |                      |                 |              |            |
|          |         |                 |                |                        |             |                        |                  |                  |                      |                 |              |            |
|          |         |                 |                |                        |             |                        |                  |                  |                      |                 |              |            |
|          |         |                 |                |                        |             |                        |                  |                  |                      |                 |              |            |
|          |         |                 |                |                        |             |                        |                  |                  |                      |                 |              |            |
|          |         |                 |                |                        |             |                        |                  |                  |                      |                 |              |            |
|          |         |                 |                |                        |             |                        |                  |                  |                      |                 |              |            |
|          |         |                 |                |                        |             |                        |                  |                  |                      |                 |              |            |
| $\Sigma$ |         |                 | $N =$          | -                      | $= 1$       | -                      | $\bar{x} =$      | $=$              | $=$                  | -               | -            | $=$        |

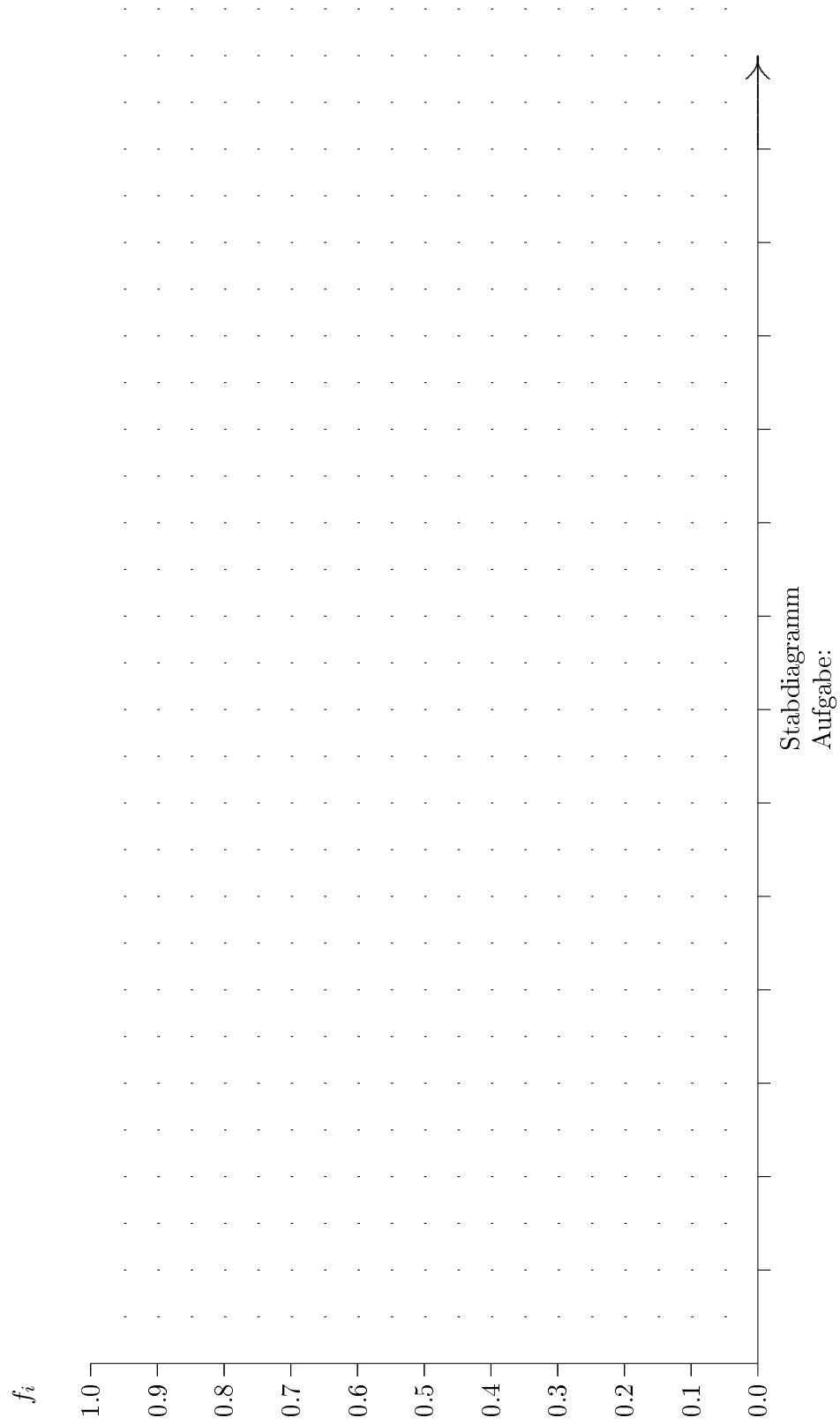
Arbeitsblatt

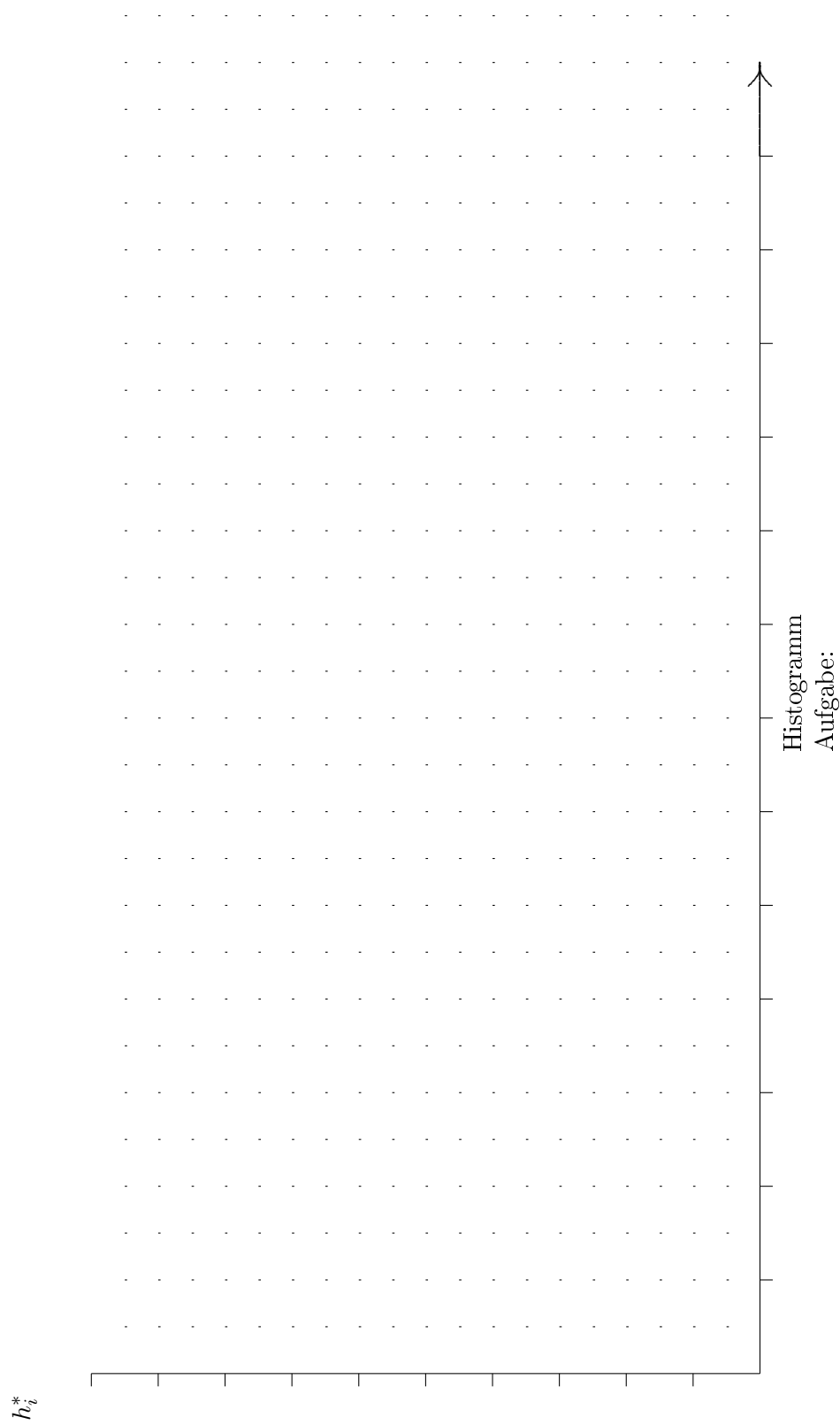
Aufgabe:

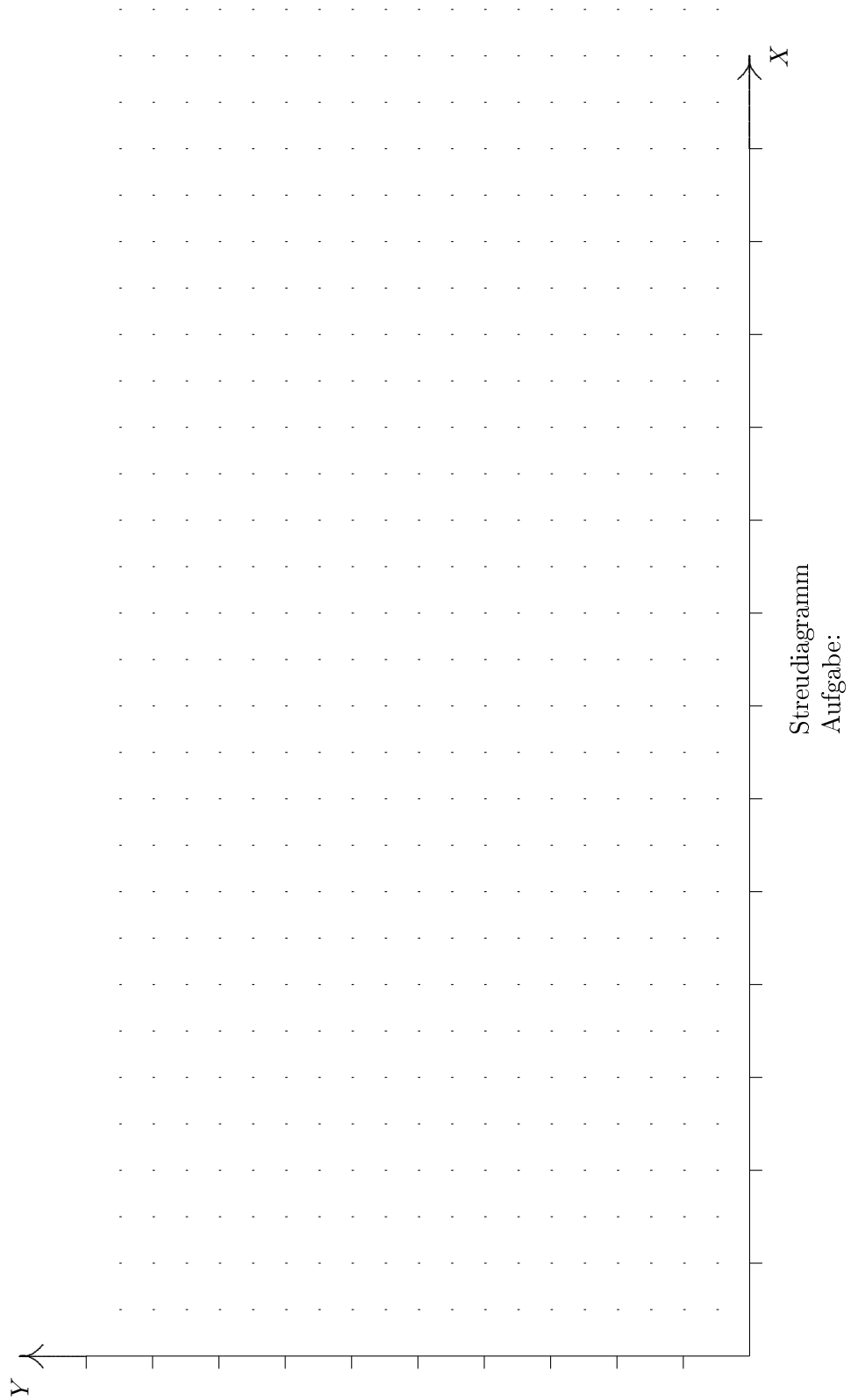
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| Beschreibung | $i$      | $x_i$ | $y_i$ | $x_i^2$ | $y_i^2$ | $x_i y_i$ |
|--------------|----------|-------|-------|---------|---------|-----------|
|              | 1        |       |       |         |         |           |
|              | 2        |       |       |         |         |           |
|              | 3        |       |       |         |         |           |
|              | 4        |       |       |         |         |           |
|              | 5        |       |       |         |         |           |
|              | 6        |       |       |         |         |           |
|              | 7        |       |       |         |         |           |
|              | 8        |       |       |         |         |           |
|              | 9        |       |       |         |         |           |
|              | 10       |       |       |         |         |           |
|              | $\Sigma$ |       |       |         |         |           |

|  |
|--|
| Mittelwert   |
| Varianz  |
| Standardabweichung                                       |
| $Cov(x, y)$  |
| $r_{xy} = \frac{Cov(x, y)}{s_x s_y}$                     |
| $a_0 = \frac{Cov(x, y)}{s_x^2} = r_{xy} \frac{s_y}{s_x}$ |
| $a_1 = \bar{y} - a_0 \bar{x}$                            |
| $\hat{y} = a_0 x + a_1 =$                                |

Arbeitsblatt Regressionsanalyse  
Aufgabe:

| Gruppe/Klassenmitte | Struktur y |       |       |       | Summe $x_i$ |
|---------------------|------------|-------|-------|-------|-------------|
| $x_i$               | $y_1$      | $y_2$ | $y_3$ | $y_4$ |             |
| 1                   |            |       |       |       |             |
| 2                   |            |       |       |       |             |
| 3                   |            |       |       |       |             |
| 4                   |            |       |       |       |             |
| 5                   |            |       |       |       |             |
| 6                   |            |       |       |       |             |
| 7                   |            |       |       |       |             |
| 8                   |            |       |       |       |             |
| 9                   |            |       |       |       |             |
| 10                  |            |       |       |       |             |
| Summe $y_i$         | $N =$      |       |       |       |             |

Arbeitsblatt zweidim-Häufigkeitsverteilung (Korrelationstabelle)  
Aufgabe:

| Gruppe/K-<br>mitte<br>$x_i$ | Struktur y |       |       |       |       |       |       |       |       |          | Summe<br>$x_i$ |
|-----------------------------|------------|-------|-------|-------|-------|-------|-------|-------|-------|----------|----------------|
|                             | $y_1$      | $y_2$ | $y_3$ | $y_4$ | $y_5$ | $y_6$ | $y_7$ | $y_8$ | $y_9$ | $y_{10}$ |                |
| 1                           |            |       |       |       |       |       |       |       |       |          |                |
| 2                           |            |       |       |       |       |       |       |       |       |          |                |
| 3                           |            |       |       |       |       |       |       |       |       |          |                |
| 4                           |            |       |       |       |       |       |       |       |       |          |                |
| 5                           |            |       |       |       |       |       |       |       |       |          |                |
| 6                           |            |       |       |       |       |       |       |       |       |          |                |
| 7                           |            |       |       |       |       |       |       |       |       |          |                |
| 8                           |            |       |       |       |       |       |       |       |       |          |                |
| 9                           |            |       |       |       |       |       |       |       |       |          |                |
| 10                          |            |       |       |       |       |       |       |       |       |          |                |
| Summe $y_i$                 |            |       |       |       |       |       |       |       |       |          | $N =$          |

Arbeitsblatt Korrelationstabelle metrischer Werte  
Aufgabe:

| $n$          | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Summe | $\frac{\text{Summe}}{n}$ |  |  |
|--------------|---|---|---|---|---|---|---|---|---|----|-------|--------------------------|--|--|
|              |   |   |   |   |   |   |   |   |   |    |       |                          |  |  |
|              | 1 |   |   |   |   |   |   |   |   |    |       |                          |  |  |
|              | 2 |   |   |   |   |   |   |   |   |    |       |                          |  |  |
| Produkt $xy$ |   |   |   |   |   |   |   |   |   |    |       |                          |  |  |

Arbeitsblatt Wertetabelle  
Aufgabe:

| $n$          |     | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Summe | Mittelwert<br>$\frac{Summe}{n}$ |                             |
|--------------|-----|---|---|---|---|---|---|---|---|---|----|-------|---------------------------------|-----------------------------|
| 1            | $x$ |   |   |   |   |   |   |   |   |   |    |       |                                 | $\overline{xy} =$           |
| 2            | $y$ |   |   |   |   |   |   |   |   |   |    |       |                                 | $\sum_n xy =$               |
| Produkt $xy$ |     |   |   |   |   |   |   |   |   |   |    |       |                                 | $\sum_n xy - \overline{xy}$ |

Arbeitsblatt Cov(x,y) basierend auf Wertetabelle  
Aufgabe:  
Formel:  $Cov(x,y) = \sum_n \frac{xy}{n} - \overline{xy} =$

| Nr       | X | Y<br>Einschätzung | $R(X)$<br>Rang X | $R(Y)$<br>Rang Y | $d = R(X) - R(Y)$<br>Differenz | $d^2$ |
|----------|---|-------------------|------------------|------------------|--------------------------------|-------|
| 1        |   |                   |                  |                  |                                |       |
| 2        |   |                   |                  |                  |                                |       |
| 3        |   |                   |                  |                  |                                |       |
| 4        |   |                   |                  |                  |                                |       |
| 5        |   |                   |                  |                  |                                |       |
| 6        |   |                   |                  |                  |                                |       |
| 7        |   |                   |                  |                  |                                |       |
| 8        |   |                   |                  |                  |                                |       |
| 9        |   |                   |                  |                  |                                |       |
| 10       |   |                   |                  |                  |                                |       |
| 11       |   |                   |                  |                  |                                |       |
| 12       |   |                   |                  |                  |                                |       |
| 13       |   |                   |                  |                  |                                |       |
| $\Sigma$ | - | -                 |                  |                  |                                |       |

Arbeitsblatt Rangzahlen und Rangdifferenzen  
Aufgabe: