

Lösung Aufgabe 1:

Zähler	Messwert 1	Messwert 2	$x_{2,i} - x_{1,i}$	$ x_{2,i} - x_{1,i} $
1	52.9	52.7	-0.2	0.2
2	95.9	65	-30.9	30.9
3	17.1	3.1	-14	14
4	28.4	84.4	56	56
5	98.4	31.8	-66.6	66.6
6	82.5	46.2	-36.3	36.3
7	23.4	90.4	67	67
8	68.5	23.4	-45.1	45.1
9	59.2	65.3	6.1	6.1
10	91.0	98.8	7.8	7.8
11	40.2	16.8	-23.4	23.4
12	39.7	31.9	-7.8	7.8
13	33.9	81.4	47.5	47.5
14	15.4	82.5	67.1	67.1
15	2.0	68.4	66.4	66.4
			\bar{R}	36.15



Lösung Aufgabe 1:

$$\bar{R} = 36,15$$

$$OWG = \bar{R} \cdot D(n = 4; P = 95\%; \text{oben}) = \bar{R} \cdot 1,935 = 69,95$$

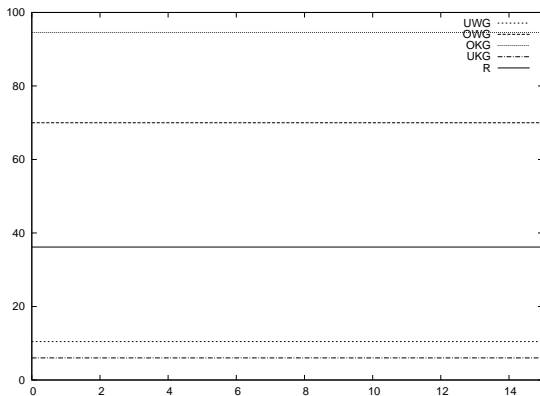
$$UWG = \bar{R} \cdot D(n = 4; P = 95\%; \text{unten}) = \bar{R} \cdot 0,289 = 10,45$$

$$OKG = \bar{R} \cdot D(n = 4; P = 99\%; \text{oben}) = \bar{R} \cdot 2,614 = 94,50$$

$$UKG = \bar{R} \cdot D(n = 4; P = 99\%; \text{unten}) = \bar{R} \cdot 0,166 = 6,00$$



Lösung Aufgabe 1:



Lösung Aufgabe 2:

Zähler	Messwert 1	Messwert 2	$x_{2,i} - x_{1,i}$	$ x_{2,i} - x_{1,i} $
1	37.61	32.35	-5.27	5.27
2	47.79	36.21	-11.58	11.58
3	7.99	19.93	11.93	11.93
4	19.93	9.17	-10.77	10.77
5	43.47	5.58	-37.89	37.89
6	6.58	4.36	-2.22	2.22
7	2.2	24.01	21.81	21.81
8	31.13	0.87	-30.26	30.26
9	15.23	0.33	-14.9	14.9
10	21.83	5.11	-16.72	16.72
			\bar{R}	16.34



Lösung Aufgabe 2:

$$\bar{R} = 16.34$$

$$OWG = \bar{R} \cdot D(n = 3; P = 95\%; \text{oben}) = \bar{R} \cdot 2,176 = 35,5558$$

$$UWG = \bar{R} \cdot D(n = 3; P = 95\%; \text{unten}) = \bar{R} \cdot 0,179 = 2,9248$$

$$OKG = \bar{R} \cdot D(n = 3; P = 99\%; \text{oben}) = \bar{R} \cdot 3,518 = 57,4841$$

$$UKG = \bar{R} \cdot D(n = 3; P = 99\%; \text{unten}) = \bar{R} \cdot 0,080 = 1,3072$$



Lösung Aufgabe 2:

