

Aufgabe 15:

Hier am besten mit einer Tabelle arbeiten!

$$\bar{X} = \frac{\sum_i \bar{x}_i m_i}{\sum_i m_i}, \quad \bar{Y} = \frac{\sum_i \bar{y}_i m_i}{\sum_i m_i}$$

i	m_i [kg]	$\bar{x}_i$ [m]	$\bar{y}_i$ [m]	$\bar{x}_i m_i$ [kgm]	$\bar{y}_i m_i$ [kgm]
1	$m_1 = 2$	$a_1 = 1$	$-b_1 = -2$	$m_1 a_1 = 2$	$-m_1 b_1 = -4$
2	$m_2 = 1$	$-a_2 = 1$	$b_2 = 1$	$-m_2 a_2 = -1$	$m_2 b_2 = 1$
3	$m_3 = 2$	$a_3 = 1$	$b_3 = 3$	$m_3 a_3 = 2$	$m_3 b_3 = 6$
4	$m_4 = 5$	$a_4 = 2$	$b_4 = 4$	$m_4 a_4 = 10$	$m_4 b_4 = 20$
Σ	10	/	/	13	23

also gilt: $\bar{X} = \frac{13 \text{ kgm}}{10 \text{ kg}} = \underline{\underline{1.3 \text{ m}}}$

$$\bar{Y} = \frac{23 \text{ kgm}}{10 \text{ kg}} = \underline{\underline{2.3 \text{ m}}}$$