LÖSUNG ZU 779:

a)

x_i	0	40	80	100
$f(x_i)$	$\frac{397}{400}$	$\frac{1}{400}$	$\frac{1}{400}$	$\frac{1}{400}$

E(X) = $\mu = \frac{397}{400} \cdot 0 + \frac{1}{400} \cdot 40 + \frac{1}{400} \cdot 80 + \frac{1}{400} \cdot 100 = 0{,}55$

V(X) = $(0 - 0{,}55)^2 \cdot \frac{397}{400} + (40 - 0{,}55)^2 \cdot \frac{1}{400} + (80 - 0{,}55)^2 \cdot \frac{1}{400} + (100 - 0{,}55)^2 \cdot \frac{1}{400} = 44{,}6975$

$\sigma = \sqrt{44{,}6975} = 6{,}6856$

b)

x_i	- 5€	35	75	95
$f(x_i)$	$\frac{397}{400}$	$\frac{1}{400}$	$\frac{1}{400}$	$\frac{1}{400}$

E(X) = $\mu = \frac{397}{400} \cdot -5 + \frac{1}{400} \cdot 35 + \frac{1}{400} \cdot 75 + \frac{1}{400} \cdot 95 = -4{,}45$

V(X) = $(-5 - (-4{,}45))^2 \cdot \frac{397}{400} + (35 - (-4{,}45))^2 \cdot \frac{1}{400} + (75 - (-4{,}45))^2 \cdot \frac{1}{400} + (95 - (-4{,}45))^2 \cdot \frac{1}{400} = 44{,}6975$

$\sigma = \sqrt{44{,}6975} = 6{,}6856$