(11)

$P(X=40) = \frac{40}{40+32+20+50} = \frac{20}{71}$

(40 – liczba elementów w A_1; 40+32+20+50 – wszystkie elementy)

$P(X=32) = \frac{32}{142} = \frac{16}{71}$

$P(X=20) = \frac{20}{142} = \frac{10}{71}$

$P(X=50) = \frac{50}{142} = \frac{25}{71}$

$P(Y=k) = \frac{1}{4}$ (czas zbiórki do wyboru)

$k \in \{40, 32, 20, 50\}$

$$EX = \sum_{i=1}^{4} x_i p_i = 40 \cdot \frac{20}{71} + 32 \cdot \frac{16}{71} + 20 \cdot \frac{10}{71} + 50 \cdot \frac{25}{71} =$$

$$= \frac{2762}{71} = 38\frac{64}{71}$$

$$EY = \sum_{i=1}^{4} x_i p_i = \frac{1}{4}(40+32+20+50) = \frac{1}{4} \cdot 142 = 35{,}5$$