A 800gm dry fruit pack costs Rs176. It contains some cashews and the rest as raisins. If the cashews cost Rs240 per kg and the raisins Rs160 per kg, what were the quantities of the two dry fruits separately.

Solution.

Suppose that there is x kg of cashews in the pack. Then there is $800\text{gm} - x$ kg $= 0.8 - x$ kg of raisins in the pack. Cashews in the pack cost RS $240x$, while raisins in the pack cost RS $160(0.8 - x)$. Hence

$$240x + 160(0.8 - x) = 176$$

or

$$80x + 128 = 176$$

or

$$80x = 48$$

or

$$x = 0.6 \text{ kg.}$$

Therefore, there is 0.6 kg $= 600$ gm of cashews and $0.8 - 0.6$ kg $= 0.2$ kg $= 200$ gm of raisins in the pack.

Answer: 600 gm of cashews and 200 gm of raisins.