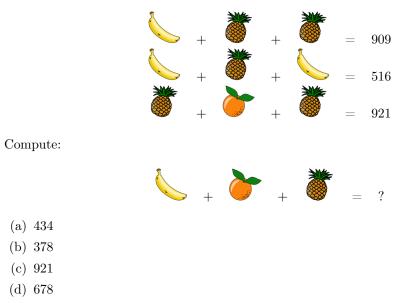
## 1. Problem

Given the following information:



(e) 528

## Solution

The information provided can be interpreted as the price for three fruit baskets with different combinations of the three fruits. This corresponds to a system of linear equations where the price of the three fruits is the vector of unknowns x:



The system of linear equations is then:

$$\left(\begin{array}{rrrr} 1 & 0 & 2 \\ 2 & 0 & 1 \\ 0 & 1 & 2 \end{array}\right) \cdot \left(\begin{array}{r} x_1 \\ x_2 \\ x_3 \end{array}\right) = \left(\begin{array}{r} 909 \\ 516 \\ 921 \end{array}\right)$$

This can be solved using any solution algorithm, e.g., elimination:

$$x_1 = 41, x_2 = 53, x_3 = 434.$$

Based on the three prices for the different fruits it is straightforward to compute the total price of the fourth fruit basket via:

