A-SSE Mixing Candies

Task

A candy shop sells a box of chocolates for $30. It has $29 worth of chocolates plus $1 for the box. The box includes two kinds of candy: caramels and truffles. Lita knows how much the different types of candies cost per pound and how many pounds are in a box. She said,

If x is the number of pounds of caramels included in the box and y is the number of pounds of truffles in the box, then I can write the following equations based on what I know about one of these boxes:

- $x + y = 3$
- $8x + 12y + 1 = 30$

Assuming Lita used the information given and her other knowledge of the candies, use her equations to answer the following:

a. How many pounds of candy are in the box?

b. What is the price per pound of the caramels?

c. What does the term $12y$ in the second equation represent?

d. What does $8x + 12y + 1$ in the second equation represent?