

HW – Writing Linear Models for Word Problems

- 1) Lin is tracking the progress of her plant's growth. Today the plant is 5 cm high. The plant grows 1.5 cm per day.
- Write a linear model that represents the height of the plant after d days.
 - What will the height of the plant be after 20 days?
- 2) Amery has x books that weigh 2 pounds each and y books that weigh 3 pounds each. The total weight of his books is 60 pounds.
- Write a linear model that relates the number of 2-pound books to the number of 3-pound books Amery has.
 - If Amery has 10 3-pound books, how many 2-pound books does he have?

3) Correct the Error

Question: The model $2x + 5y = 85$ can be used to model how much money Tim spent on x sodas and y sandwiches. If he bought 15 sodas, how many sandwiches did he purchase?

Solution:

$$2x + 5(15) = 85$$

$$2x + 75 = 85$$

$$2x = 10 \text{ or } x = 2$$

Tim bought 2 sandwiches.

What is the error? Explain how to solve the problem.