Name _____   Date _____

Draw a tape diagram to solve the following problems.

1. Timmy drank 2 quarts of water yesterday. He drank twice as much water today as he drank yesterday. How many cups of water did Timmy drink in the two days?
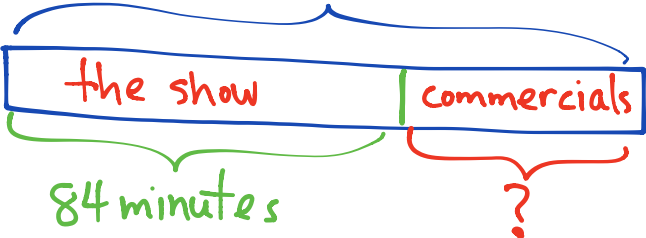
Yesterday

Today

$\}$ 6 quarts

1 quart = 4 cups
6 quarts = 24 cups

He drank 24 cups of water in the two days.

2. Lisa recorded a 2-hour television show. When she watched it, she skipped the commercials. It took her 84 minutes to watch the show. How many minutes did she save by skipping the commercials?

2 hours = 120 minutes

the show   commercials

84 minutes   ?

$$\begin{array}{r} 1\overset{1}{\cancel{2}}\overset{1}{\cancel{0}} \\ -\ \ 8\ 4 \\ \hline 3\ 6 \end{array}$$

Lisa saved 36 minutes.

3. Jason bought 2 pounds of cashews. Sarah ate 9 ounces. David ate 2 ounces more than Sarah. How many ounces were left in Jason's bag of cashews?
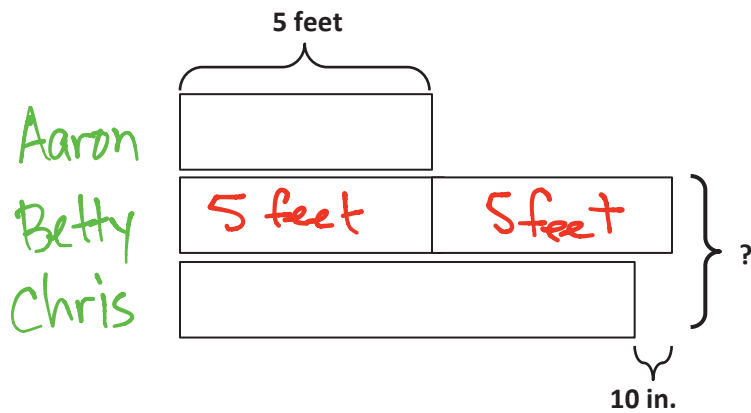
Sarah   9

David   9   2

9 + 9 + 2 = 20 ounces

They ate 20 ounces of cashews.

1 pound = 16 ounces
2 pounds = 32 ounces

$$\begin{array}{r} 32 \\ -\ 20 \\ \hline 12 \end{array}$$

There are 12 ounces left in Jason's bag.

4. a.   Label the rest of the tape diagram below. Solve for the unknown.

5 feet

Aaron

Betty | 5 feet | 5 feet |

Chris

?

10 in.

$5 ft + 5 ft = 10 ft$

$10 ft \times 12 = 120$ inches (Betty)

120 inches $- 10$ inches $= 110$ inches (Chris)

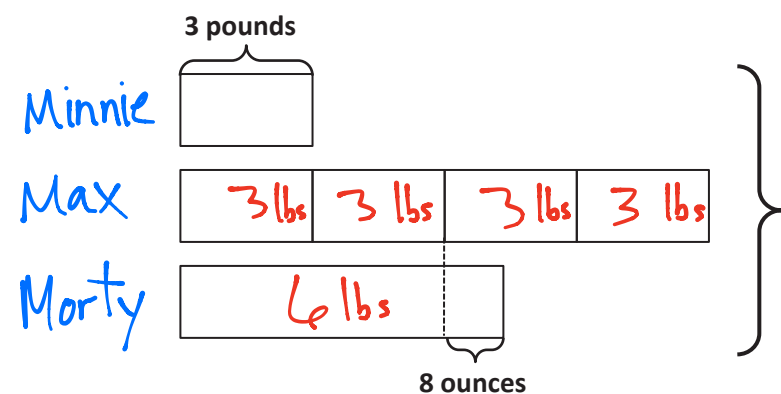$120 in + 110 in = 230$ inches

b.   Write a problem of your own that could be solved using the diagram above.

Answers will vary.

Aaron, Betty, and Chris each throw a paper airplane. Aaron's plane flies 5 feet. Betty's plane flies twice as far as Aarons plane. Chris's plane flies 10 inches shorter than Betty's. What is the combined distance flown by Betty's and Chris's planes?

5.   Create a problem of your own using the diagram below, and solve for the unknown.

3 pounds

Minnie

Max | 3 lbs | 3 lbs | 3 lbs | 3 lbs |

Morty | 6 lbs |

?

8 ounces

I have 3 dogs. Minnie weighs 3 pounds. Max weighs 4 times as much as Minnie. Morty weighs 10 ounces more than half Max's weight. What is the total weight of all three dogs?

21 pounds 8 ounces

Minnie = 3 pounds
Max = 4×3 = 12 pounds
Morty = 6 pounds + 8 ounces

21 pounds 8 ounces