Mixed Measures

Gabrielle's puppy weighs 2 pounds 7 ounces. What is the weight of the puppy in ounces?

Step 1 Think of 2 pounds 7 ounces as 2 pounds + 7 ounces.

Step 2 Change the pounds to ounces.
Think: 1 pound = __16__ ounces

So, 2 pounds = 2 × 16 ounces, or __32__ ounces.

Step 3 Add like units to find the answer.

So, Gabrielle's puppy weighs __39__ ounces.

$$\begin{array}{r} 32 \text{ ounces} \\ + 7 \text{ ounces} \\ \hline 39 \text{ ounces} \end{array}$$

Gabrielle played with her puppy for 2 hours 10 minutes yesterday and 1 hour 25 minutes today. How much longer did she play with the puppy yesterday than today?

Step 1 Subtract the mixed measures. Write the subtraction with like units lined up.
Think: 25 minutes is greater than 10 minutes.

$$\begin{array}{r} 2 \text{ hr } 10 \text{ min} \\ - 1 \text{ hr } 25 \text{ min} \\ \hline \end{array}$$

Step 2 Rename 2 hours 10 minutes to subtract.
1 hour = 60 minutes
So, 2 hr 10 min = 1 hr + 60 min + 10 min, or __1__ hr __70__ min.

$$\begin{array}{r} 1 \quad 70 \\ \cancel{2} \text{ hr } \cancel{10} \text{ min} \\ - 1 \text{ hr } 25 \text{ min} \\ \hline 0 \text{ hr } 45 \text{ min} \end{array}$$

Step 3 Subtract like units.
1 hr − 1 hr = 0 hr; 70 min − 25 min = __45 min__

So, she played with the puppy __45__ minutes longer yesterday than today.

Complete.

1 4 yd 2 ft = _____ ft **2** 1 hr 20 min = _____ min **3** 4 qt 1 pt = _____ pt

Add or subtract.

4 2 gal 1 qt
+ 3 gal 2 qt

5 3 lb 12 oz
− 1 lb 8 oz

6 4 yr 9 mo
− 1 yr 10 mo