

G4-M7-Lesson 9

1 day = 24 hr
 1 hr = 60 min
 1 min = 60 sec

1. Determine the following sum and difference. Show your work.

a. $6 \text{ hr } 26 \text{ min} + 4 \text{ hr } 41 \text{ min} = \underline{11} \text{ hr } \underline{7} \text{ min}$

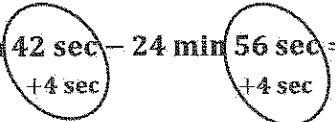
$6 \text{ hr } 26 \text{ min} + 4 \text{ hr } 41 \text{ min} = 10 \text{ hr } 67 \text{ min} = 11 \text{ hr } 7 \text{ min}$



I add like units just as with fractions or other measurement units.

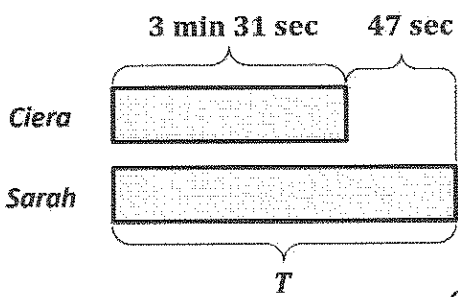
b. $36 \text{ min } 42 \text{ sec} - 24 \text{ min } 56 \text{ sec} = \underline{11} \text{ min } \underline{46} \text{ sec}$

$36 \text{ min } 42 \text{ sec} - 24 \text{ min } 56 \text{ sec} = 36 \text{ min } 46 \text{ sec} - 25 \text{ min} = 11 \text{ min } 46 \text{ sec}$



I use compensation as a strategy to solve. I add 4 seconds to each time. The difference remains the same. Subtracting just one unit, minutes, is easier than subtracting mixed units.

2. Ciera finished the race in 3 minutes 31 seconds. She beat Sarah's time by 47 seconds. What was Sarah's time?



Since Ciera beat Sarah's time, Ciera's tape is going to be shorter.

$T = 3 \text{ min } 31 \text{ sec} + 47 \text{ sec}$
 $= 3 \text{ min } 78 \text{ sec}$
 $= 1 \text{ min } 18 \text{ min}$
 $= 4 \text{ min } 18 \text{ sec}$

Adding like units is an efficient way to solve.

Sarah's time was 4 minutes 18 seconds.