

## ADD #3

### Factors, greatest common factors, multiplying or dividing by 10, 100, 1000..., converting hours, minutes, and seconds, multiplying decimals, and long division

- ¶ Factor: A whole number that will divide into another number exactly. (The factors of 10 are 1, 2, 5 and 10).
  
- ¶ Greatest Common Factor: The largest number common to each set of factors that divides both numbers exactly. E.g., the greatest common factor of 10 and 15 is 5.
  
- ¶ Multiplying by 10, 100, 1000... :Move the decimal one place to the right for each 0.
  
- ¶ Dividing by 10, 100, 1000... :Move the decimal one place to the left for each 0.
  
- ¶ Converting hours, minutes, and seconds:
  - To convert hours to minutes you multiply the number of hours times 60
    - Ex: 2 hrs x 60 = 120 minutes
    - Ex: 0.8 hrs x 60 = 48 minutes
  - To convert minutes to seconds you multiply the number of minutes times 60
    - Ex: 2 min x 60 = 120 seconds
    - Ex: 0.8 min x 60 = 48 seconds
  - To convert minutes to hours you divide the number of minutes by 60
    - Ex: 120 min / 60 = 2 hours
    - Ex: 48 min / 60 = 0.8 hours

To convert seconds to minutes you divide the number of seconds by 60

- Ex:  $120 \text{ sec} / 60 = 2 \text{ minutes}$
- Ex:  $48 \text{ sec} / 60 = 0.8 \text{ minutes}$

¶ **Multiplying decimals:** When you multiply decimals, you multiply the numbers as you usually would, ignoring the decimals, and then once you have the answer, move the decimal the same number to the left as the number of decimals.

- Ex:  $11.2 \times 9.5 = 10640$  ignoring the decimals. Since there were 2 digits behind the decimal in the problem (.2 & .5), my answer would be 106.40

¶ **Long Division:**  $7170/8$ .

Handwritten long division of 7170 by 8. The quotient is 896.25. The process shows the following steps:

$$\begin{array}{r} 8 \overline{) 7170.00} \\ \underline{-64} \phantom{00} \\ 77 \phantom{00} \\ \underline{-72} \phantom{00} \\ 50 \phantom{00} \\ \underline{-48} \phantom{00} \\ 20 \phantom{00} \\ \underline{-16} \phantom{00} \\ 40 \end{array}$$

- [Click here for another example](#)