

Odometer Correction

- Calculate ODO correction factor based on the ODO check section (first section in the rally)
 - ➔ Your mileage / official mileage = ODO correction factor
 - ➔ Multiply mileages in NRI by this figure to read mileages for your odometer

Basic Calculations

- Convert seconds into decimals (e.g., 6 seconds is 0.1 of a minute)
- $\Delta t = \Delta \text{ mileage} / \text{CAST} * 60$
 - ➔ Calculation is first done for each time CAST changes (if that info is missing)
 - ➔ Splits can be calculated later
- $t = t (\text{previous}) + \Delta t$
- Convert decimal time back into seconds
- Add pause times

Basic Rally Math Application

- NRI 26 shows the speed (54 mph) and interval (Δ mileage 4.99 miles), but no perfect time. You want to know your perfect time.
- Δ Time (min) = Δ mileage / Speed * 60
- Δ Time = $4.85 / 54 \times 60 = 5.39$ min
- Time = t (at previous NRI 25) + Δ Time
- Time = 9:10.73 + 5.39 = 9:16.12
- Convert from decimal minutes to min:sec by multiplying the decimal by 60 [$0.12 \times 60 = 7.2$]
- Time = 9h : 16 min : 07 seconds

Basic Rally Math Application #2

- It's a long distance between NRI 25 and 26 and you want to stay on time between them.
- Calculate interval times: How long to drive a (mile, half mile, ...) at a given speed.
- $\text{Time}(\text{min}) = 60 \times \text{Distance}(\text{mi}) / \text{speed}(\text{mph})$
- $\text{Time} = 0.5 / 54 \times 60$
- $\text{Time} = 0.55$ mins; convert from decimal minutes to seconds ($0.55 \text{ min} \times 60 = 33 \text{ sec}$)
- So time each half mile, aiming for 33 secs, and keeping a running total

Basic Rally Math Application #3

- At NRI 25 you are given the speed and perfect times, but the distance is blank. You want to know how far until the next instruction.
- Distance (mi)= speed (mph) x (time (min)/60)
- Time is given in min:sec, so need to convert to decimal minutes by dividing the secs by 60
- 9:09:28 = 9:09.47 mins
- Distance= 38 mph x 9.47 mins x 1/60
- Distance= 4.25 miles
- Don't forget to do your ODO correction to this mileage