Problem Solving Method Practice

Equations

$$\bar{s} = \frac{d}{\Delta t}$$

$$\bar{v} = \frac{\Delta x}{\Delta t}$$

$$\Delta x = x_f - x_0$$

$$1\,\mathrm{m/s} = 3.6\,\mathrm{km/h}$$

Problem Solving Method

- 1. Picture
- 2. Knowns/Unknowns
- 3. Check units
- 4. Pick an equation (solve algebraically)
- 5. Plug & Chug
- 6. Answer with units

Problems

- 1. A certain object has a velocity of $25 \,\mathrm{km/h}$.
 - (a) How much time will it take to fly $150\,\mathrm{m}$?
 - (b) How about 360 m?

Name: Date: Period:

2. An airplane travels 2100 km at a velocity of 720 km/h and then encounters a tailwind that boosts its speed to 990 km/h for the next 2800 km.

- (a) What was the total time of the trip?
- (b) what was the airplane's average velocity?