

Lesson 1

Read Chapter 1

Units, Formulas, Coordinate Systems, Linear motion

Please familiarize yourself with the canvas page

Please login into WebAssign before your first quiz section

Word Problems

- ▶ Draw a picture (Ch 2)
- ▶ Identify useful formulas
- ▶ Pay attention to units

Convert 2 hrs 10 minutes and 57 seconds to hours.

Error tolerance in WebAssign

Convert 7857.31 seconds into hours , minutes and seconds.

$$1 \text{ hr} = \frac{1}{3600} \text{ sec}$$

$$\frac{7857.31}{3600} = \boxed{2.1826} \text{ hrs} . \quad 2 \text{ hrs and } 0.1826 \text{ hrs}$$

$$1 \text{ hr} = 60 \text{ min}$$

$$\underline{0.1826} \times 60 = \boxed{10.956} \text{ min} . \quad 10 \text{ min and } 0.956 \text{ min}$$

$$1 \text{ min} = 60 \text{ sec}$$

$$\underline{0.956} \times 60 = \boxed{57.36} \text{ sec} . \quad 57 \text{ sec} \quad \text{and } \underbrace{0.36 \text{ sec}}_{\text{we will disregard this}}$$

Approx : 2 hrs 10 min 57 sec

Check handouts with Area and Volume formulas

Other formulas :

$$d = vt, \text{ for constant speed/velocity } v$$

$$\text{mass} = \text{density} \times \text{volume}$$

$$\text{total change} = \text{rate of change} \times t, \text{ for constant rate of change}$$

$$d=vt$$

distance=speed × time

displacement=velocity × time

Sarah can bicycle around a path, with constant speed, in two hours and 40 min. If she decreases her speed by 1 km/hr her time increases by 4 min. How long is the path ?

Dave has inherited an apple orchard with 60 trees. Each tree yields 12 bushels of apples. For each tree that is removed the yield per tree goes up 0.45 bushels. Find a formula for a function $y(x)$ that gives the total yield of the orchard (NOT the yield per tree) in terms of the number x of trees remaining in the orchard.