

Chem Ch 10 wkst 10C

① Given: 60 goats = \$? Soln:

$$5 \text{ goats} = 7 \text{ sheep}$$

$$4 \text{ sheep} = 2 \text{ hogs}$$

$$1 \text{ hog} = 250 \text{ lbs}$$

$$100.0 \text{ lbs} = \$ 55.00$$

$$\left( \frac{60 \text{ goats}}{1} \right) \left( \frac{7 \text{ sheep}}{5 \text{ goats}} \right) \left( \frac{2 \text{ hogs}}{4 \text{ sheep}} \right) \left( \frac{250 \text{ lb}}{1 \text{ hog}} \right) \left( \frac{\$ 55.00}{100.0 \text{ lbs}} \right)$$

$$= \$ 5800$$

② Given:

$$125 \text{ m} = \$ ?$$

$$30 \text{ Nails} = 1 \text{ meter}$$

$$40 \text{ Nails} = 1 \text{ Box}$$

$$1 \text{ Box} = \$ 0.75$$

$$\left( \frac{125 \text{ m}}{1} \right) \left( \frac{30 \text{ nails}}{1 \text{ m}} \right) \left( \frac{1 \text{ Box}}{40 \text{ Nails}} \right) \left( \frac{\$ 0.75}{1 \text{ Box}} \right) = \$ 70.31$$

③ Given:

$$1 \text{ Carton} = 1 \text{ Dozen Eggs}$$

$$? \text{ eggs} = 5 \text{ Truck}$$

$$1 \text{ crate} = 20 \text{ cartons}$$

$$1 \text{ Truck} = 5 \text{ crates} \times 25 \text{ crates} \times 25 \text{ crates} = 3,125 \text{ crates}$$

$$\left( \frac{5 \text{ Trucks}}{1} \right) \left( \frac{3,125 \text{ crates}}{1 \text{ Truck}} \right) \left( \frac{20 \text{ cartons}}{1 \text{ crate}} \right) \left( \frac{12 \text{ eggs}}{1 \text{ carton}} \right) = 3,750,000 \text{ eggs}$$

④ Given: \$ 27.90 = ? miles

$$14 \text{ km} = 1 \text{ liter}$$

$$1.1 \text{ qt} = 1 \text{ L}$$

$$4 \text{ qt} = 1 \text{ gal}$$

$$\$ 3.50 = 1 \text{ gal}$$

$$1.61 \text{ km} = 1 \text{ mile}$$

$$\left( \frac{\$ 27.90}{1} \right) \left( \frac{1 \text{ gal}}{\$ 3.50} \right) \left( \frac{4 \text{ qt}}{1 \text{ gal}} \right) \left( \frac{1 \text{ L}}{1.1 \text{ qt}} \right) \left( \frac{14 \text{ km}}{1 \text{ L}} \right) \left( \frac{1 \text{ mile}}{1.61 \text{ km}} \right) = 250 \text{ miles}$$

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⑤ Given:

$$\$ ? = 85 \text{ Mg} \quad 2000 \text{ lb} = 1 \text{ Ton}$$

$$3.0 \text{ Tons} = 1 \text{ hr}$$

$$\$ 35.00 = 1 \text{ hr}$$

$$2.2 \text{ lb} = 1 \text{ kg}$$

$$\left( \frac{85 \text{ Mg}}{1} \right) \left( \frac{1000 \text{ kg}}{1 \text{ Mg}} \right) \left( \frac{2.2 \text{ lb}}{1 \text{ kg}} \right) \left( \frac{1 \text{ Ton}}{2000 \text{ lb}} \right) \left( \frac{1 \text{ hr}}{3 \text{ TON}} \right) \left( \frac{\$ 35.00}{1 \text{ hr}} \right) = \$ 1090$$

$$= \$ 1100$$

⑥ Given:

$$\$ ? = \text{per play}$$

$$\$ 95,000,000 = 5 \text{ yrs} \quad 1 \text{ yr} = 16 \text{ games}$$

$$10 \text{ plays} = 1 \text{ quarter}$$

$$1 \text{ game} = 4 \text{ quarters}$$

$$\left( \frac{\$ 95,000,000}{5 \text{ yrs}} \right) \left( \frac{1 \text{ yr}}{16 \text{ Games}} \right) \left( \frac{1 \text{ Game}}{4 \text{ quarters}} \right) \left( \frac{1 \text{ quarter}}{10 \text{ plays}} \right) = \$ 29,687.50 / \text{play}$$

$$= \$ 30,000 / \text{play}$$