

Part 1:

① Number of tablets = $\frac{1500 \text{ mg}}{750 \text{ mg}} = 2 \text{ tablets}$ ~~##~~

② $130 \text{ lbs} \approx 59 \text{ kg}$

$\therefore \text{in mg/dose} = \frac{4 \text{ mg}}{\text{kg}} \times 59 \text{ kg} \approx 236 \text{ mg/dose}$ ~~##~~

③ $2 \text{ g} \times \frac{1000 \text{ mg}}{1 \text{ g}} \times \frac{1 \text{ tablet}}{500 \text{ mg}} = 4 \text{ tablets}$ ~~##~~

④ $0.3 \text{ mg} \times \frac{1000 \text{ mcg}}{1 \text{ mg}} \times \frac{2 \text{ mL}}{1000 \text{ mcg}} = 0.6 \text{ mL}$ ~~##~~

Part 2:

① $29 \text{ lbs} \approx 13.15 \text{ kg}$

$\text{in mg/dose} = 20 \times 13.15$
 $= 263 \text{ mg/dose} / 2 \text{ doses}$
 $= 131.5 \text{ mg/dose}$
 $\text{mL/dose} = \frac{131.5 \text{ mg/dose}}{10 \text{ mg/mL}} = 13.15 \text{ mL/dose}$ ~~##~~

③ $= \frac{77.27 \text{ kg}}{2.2} \times \frac{23181 \text{ mcg/hr}}{0.05 \text{ mg/mL}} \times 60 \text{ min} \times \frac{1}{1000}$
 $= 29 \text{ mL/hr}$ ~~##~~

④ $1 \text{ cat } 3 \text{ wks old} \approx 13-15 \text{ kg} \therefore \text{cat weight } 14 \text{ kg}$

$\text{dose (mg)} = \frac{50 \times 14}{3} = 233.33 \text{ mg/dose}$

$\text{Volume (mL)} = \frac{\text{dose (mg)}}{\text{concentration (mg/mL)}} = \frac{233.33}{400/15} = 2.916 \text{ mL}$
 $\downarrow \text{round}$
 2.5 mL ~~##~~

⑤ $82.4 \text{ lbs} \approx 37.38 \text{ kg}$

$\frac{2 \text{ mg}}{\text{kg}} \times 37.38 \text{ kg} = 74.76 \text{ mg}$

$\frac{125 \text{ mg}}{2 \text{ mL}} = X \text{ mg}$

$X = 1.19$ ~~##~~