

1. o: 20mEq po BID  
s: 30mEq/15ml  
$$x_{ml} = \frac{15ml}{30mEq} \cdot \frac{20mEq}{1} = \frac{300}{30} = 10ml$$

2. o: 150mg po TID  
s: 75mg/7.5ml  
$$x_{ml} = \frac{7.5ml}{75mg} \cdot \frac{150mg}{1} = \frac{1,125}{75} = 15ml$$

3. o: 0.125mg po everyday  
s: 0.25 mg/10ml  
$$x_{ml} = \frac{10ml}{0.25mg} \cdot \frac{0.125mg}{1} = \frac{1.25}{0.25} = 5ml$$

4. o: 375mg po TID  
s: 125mg/5ml  
$$x_{ml} = \frac{5ml}{125mg} \cdot \frac{375mg}{1} = \frac{1875}{125} = 15ml$$

5. o: 40mg  
s: 20mg/2.5ml  
$$x_{ml} = \frac{2.5ml}{20mg} \cdot \frac{40mg}{1} = \frac{100}{20} = 5ml$$

6. o: 0.5mg po every day  
s: 0.25mg  
$$x_{tabs} = \frac{1tab}{0.25mg} \cdot \frac{0.5mg}{1} = \frac{0.5}{0.25} = 2tabs$$

7. o: 100mcg everyday po  
s: 0.1mg cap  
$$x_{cap} = \frac{1cap}{0.1mg} \cdot \frac{1mg}{1000mcg} \cdot \frac{100mcg}{1} = \frac{100}{100} = 1cap$$

8. o: 250mg po everyday  
s: 100mg tabs  
$$x_{tab} = \frac{1tab}{100mg} \cdot \frac{250mg}{1} = \frac{250}{100} = 2.5tab$$

9. o: 0.5g po q6h  
s: 250mg cap  
$$x_{cap} = \frac{1cap}{250mg} \cdot \frac{1000mg}{1g} \cdot \frac{0.5g}{1} = \frac{500}{250} = 2cap$$

10. o: 0.3mg po everyday  
s: 300mcg tab  
$$x_{tab} = \frac{1tab}{300mcg} \cdot \frac{1000mcg}{1mg} \cdot \frac{0.3mg}{1} = \frac{300}{300} = 1tab$$

$$1. \text{ x mL} = \frac{1 \text{ mL}}{15 \text{ mg}} \cdot \frac{10 \text{ mg}}{1} = \frac{10}{15} = 0.66\bar{6} = \boxed{0.7 \text{ mL}}$$

$$2. \text{ x mL} = \frac{3 \text{ mL}}{200 \text{ mg}} \cdot \frac{1000 \text{ mg}}{1 \text{ g}} \cdot \frac{0.1 \text{ g}}{1} = \frac{300}{200} = \boxed{1.5 \text{ mL}}$$

$$3. \text{ x mL} = \frac{1 \text{ mL}}{5000 \text{ mcg}} \cdot \frac{1000 \text{ mcg}}{1} = \frac{1000}{5000} = \boxed{0.2 \text{ mL}}$$

$$4. \frac{1\%}{1 \text{ g}} = \frac{100 \text{ mL}}{1 \text{ g}} \quad \text{x mL} = \frac{100 \text{ mL}}{1 \text{ g}} \cdot \frac{1 \text{ g}}{1000 \text{ mg}} \cdot \frac{25 \text{ mg}}{1} = \frac{2500}{1000} = \boxed{2.5 \text{ mL}}$$

$$5. \text{ x mL} = \frac{1 \text{ mL}}{0.4 \text{ mg}} \cdot \frac{0.5 \text{ mg}}{1} = \frac{0.5}{0.4} = \boxed{1.25 \text{ mL}} = \boxed{1.3 \text{ mL}}$$

$$6. 10 + 3 = \boxed{13 \text{ units}}$$

$$7. \text{ x mL} = \frac{1 \text{ mL}}{0.5 \text{ mEq}} \cdot \frac{1.2 \text{ mEq}}{1} = \frac{1.2}{0.5} = \boxed{2.4 \text{ mL}}$$

$$8. \text{ x mL} = \frac{1000 \text{ mL}}{1 \text{ g}} \cdot \frac{1 \text{ g}}{1000 \text{ mg}} \cdot \frac{1 \text{ mg}}{1000 \text{ mcg}} \cdot \frac{500 \text{ mcg}}{1} = \frac{500,000}{1,000,000} = \boxed{0.5 \text{ mL}}$$

9. a. 2 mL  
 b. 4 g, 2.6 mL  
 c.  $\frac{2.6 \text{ mL}}{1 \text{ g}} \cdot \frac{1 \text{ g}}{1} = \frac{2.6}{1} = 2.6 \text{ mL}$   
 d. 2.6 mL  
 e. nothing  
 f. discard vial

10. a. 1.8 mL, sterile bacteriostatic USP  
 b. 250 mg/mL  
 c. 1.2 mL  
 d. 1.2 mL  
 e. discard vial, use w/in 4 hr of reconstitution  
 f. no storage, discarded

1. a.  $6.66\bar{6} = 7 \text{ mL/hr} = 6.7 \text{ hrs}$   
 b.  $\frac{10 \text{ gtt}}{\text{min}} \cdot \frac{150 \text{ mL}}{1 \text{ mL}} \cdot \frac{1 \text{ hr}}{60 \text{ min}} = \frac{1500}{60} = 25 \text{ gtt/min}$   
 $= \frac{60 \text{ gtt}}{1 \text{ mL}} \cdot \frac{150 \text{ mL}}{1 \text{ hr}} = \frac{9000}{60} = 150 \text{ gtt/min}$

c. macrodrip, drip rate easier to count

2.  $\frac{60 \text{ gtt}}{1 \text{ mL}} \cdot \frac{100 \text{ mL}}{60 \text{ min}} = \frac{6000}{60} = 100$   
 $\frac{10 \text{ gtt}}{1 \text{ mL}} \cdot \frac{100 \text{ mL}}{60 \text{ min}} = \frac{1000}{60} = 16.66\bar{6} = 17$

a.  $\rightarrow$   
 b. macro, easier to count

3. a. infuse volume of 150 mL  
 b.  $\frac{15 \text{ gtt}}{1 \text{ mL}} \cdot \frac{150 \text{ mL}}{3 \text{ hr}} \cdot \frac{1 \text{ hr}}{60 \text{ min}} = \frac{2,250}{180} = 12.5 = 13$   
 $\frac{60 \text{ gtt}}{1 \text{ mL}} \cdot \frac{150 \text{ mL}}{3 \text{ hr}} \cdot \frac{1 \text{ hr}}{60 \text{ min}} = \frac{9000}{180} = 50$

c. micro

4.  $\frac{500}{24} = 20.833 = 21 \text{ mL/hr}$

5. a. 250 mL; D5W; over 1 hr  
 b.  $\frac{10 \text{ gtt}}{1 \text{ mL}} \cdot \frac{250 \text{ mL}}{1 \text{ hr}} \cdot \frac{1 \text{ hr}}{60 \text{ min}} = \frac{2500}{60} = 41.66\bar{6} = 42 \text{ gtt/min}$

6. a.  $\frac{10 \text{ mL}}{19} \cdot \frac{1 \text{ g}}{1000 \text{ mg}} \cdot \frac{500 \text{ mg}}{1} = \frac{5000}{1900} = 2.63 \text{ mL}$  10 mL needed  
 b.  $\frac{250 \text{ mL}}{8 \text{ hr}} = 31.2 \text{ hr} = 31 \text{ gtt/min}$  31 gtt/min

$$7. \begin{array}{l} 125 \cdot 20 = 2500 \text{ mL} \\ 75 \cdot 4 = 300 \text{ mL} \end{array} \rightarrow \boxed{2800 \text{ mL}}$$

$$8. 1000/90 = 11.111 \rightarrow \boxed{11 \text{ hrs}}$$

$$9. 0.5 \text{ g} = 500 \text{ mg} = \boxed{50 \text{ mg}}$$

$$10. a. 75 \text{ mL}; 15 \text{ W}; 60 \text{ min}$$

b. Set infusion pump to appropriate rate/volume

$$11. \begin{array}{r} 0.75 \cdot 150 = 112.5 \text{ mL isocal} \\ - 150 \text{ mL} \\ \hline 37.5 \text{ mL water} \end{array}$$

$$12. \begin{array}{r} 0.5 \cdot 500 \text{ mL} = 250 \text{ mL vironex} \\ 500 - 250 = 250 \text{ mL water} \end{array}$$

$$13. \begin{array}{r} 0.25 \cdot 400 = 100 \text{ mL osmolite} \\ - 100 \\ \hline 300 \text{ mL water} \end{array}$$

$$14. \begin{array}{r} 500 \text{ mL isocal} \\ 0 \text{ mL water} \end{array}$$

Korlie Kobers  
8/23/23  
Self Test #4  
1-2

1. a. dose is correct

b. total # of mL = 250 mL, mL/hr = 500 mL/hr

the pump will deliver 250 mL in 30 minutes

2. a. dose is correct

b. 2-100 mg tabs; 3-10 mg tabs