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PROFICIENCY TEST 1 Calculation of Oral Doses

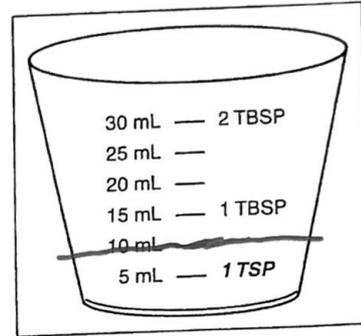
Name: Brayden Pereda

For liquid answers, draw a line on the medicine cup indicating the amount you would pour.
Answers are given in Appendix A.

1. Order: KCl elixir 20 mEq po bid
Supply: liquid labeled 30 mEq/15 mL
Answer: 10 mL

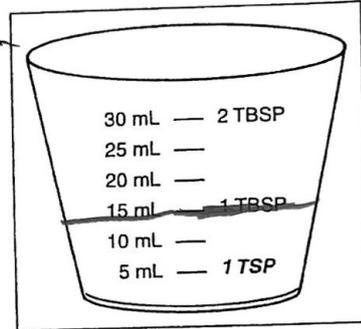
$$\frac{20 \text{ mEq}}{30 \text{ mEq}} \times 15 \text{ mL} = 10 \text{ mL}$$

or $\frac{15 \text{ mL}}{30 \text{ mEq}} \times 20 \text{ mEq} = 10 \text{ mL}$



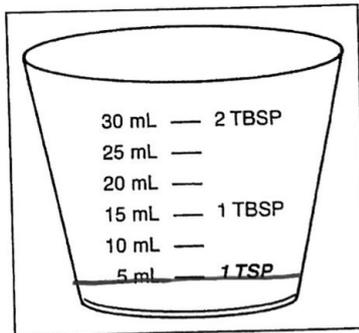
2. Order: Dilantin (phenytoin) susp 150 mg po tid
Supply: liquid labeled 75 mg/7.5 mL
Answer: _____

$$\frac{7.5 \text{ mL}}{75 \text{ mg}} \times 150 \text{ mg} = 15 \text{ mL}$$



3. Order: Lanoxin (digoxin) elixir 0.125 mg po every day
Supply: liquid labeled 0.25 mg/10 mL
Answer: 5 mL

$$\frac{10 \text{ mL}}{0.25 \text{ mg}} \times 0.125 \text{ mg} = 5 \text{ mL}$$



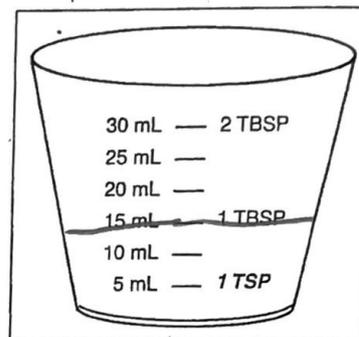
(continued)

PROFICIENCY TEST 1 Calculation of Oral Doses (Continued)

Name: Brayden Percival

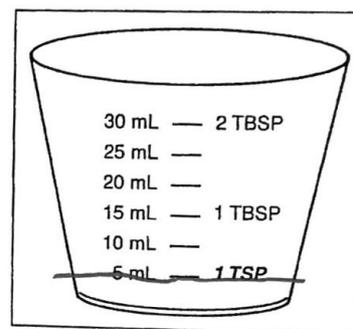
4. Order: Dilantin (phenytoin) oral susp 375 mg po tid
 Supply: liquid labeled 125 mg/5 mL
 Answer: 15 mL

$$\frac{5 \text{ mL}}{125 \text{ mg}} \cdot \frac{375 \text{ mg}}{1} = 15 \text{ mL}$$



5. Order: Tagamet (cimetidine) 40 mg
 Supply: suspension labeled 20 mg/2.5 mL
 Answer: 5 mL

$$\frac{2.5 \text{ mL}}{20 \text{ mg}} \cdot \frac{40 \text{ mg}}{1} = 5 \text{ mL}$$



6. Order: Lanoxin (digoxin) 0.5 mg po every day
 Supply: tablets labeled 0.25 mg
 Answer: 2 tabs

$$\frac{0.50}{0.25} = 2 \text{ tabs } 0.5 \text{ mg} = 2$$

7. Order: Lanoxin (digoxin) 100 mcg every day po
 Supply: 0.1-mg capsules
 Answer: 1 cap

$$\frac{1 \text{ cap } 1 \text{ mg}}{0.1 \text{ mg}} \cdot \frac{100 \text{ mcg}}{100 \text{ mcg}} = 1 \text{ cap}$$

8. Order: Zyloprim (allopurinol) 250 mg po every day
 Supply: scored tablets 100 mg
 Answer: 2.5 tablets

$$\frac{1 \text{ cap } 1000 \text{ mg}}{250 \text{ mg}} \cdot \frac{0.5 \text{ g}}{1 \text{ g}} = 2$$

9. Order: ampicillin 0.5-g po q6h
 Supply: capsules labeled 250 mg
 Answer: 2 capsules

10. Order: Synthroid (levothyroxine) 0.3 mg po every day
 Supply: tablets labeled 300 mcg scored
 Answer: 1 tablet

$$\frac{1 \text{ tab } 300 \text{ mcg}}{300 \text{ mcg}} \cdot \frac{1000 \text{ mcg}}{1 \text{ mg}} \cdot \frac{0.3 \text{ mg}}{1 \text{ mg}} = 1 \text{ tab}$$

Ch 5: Liquids for Injection Test 2

$$1) \frac{1 \text{ mL}}{15 \text{ mg}} 10 \text{ mg} = 0.7 \text{ mL}$$

$$2) \frac{3 \text{ mL}}{200 \text{ mg}} \frac{1000 \text{ mg}}{1 \text{ g}} \frac{0.1 \text{ g}}{1} = \frac{300}{200} = 1.5 \text{ mL}$$

$$3) \frac{1 \text{ mL}}{5000 \text{ mcg}} 1000 \text{ mcg} = 0.2 \text{ mL}$$

$$4) \frac{100 \text{ mL}}{1000 \text{ mg}} 25 \text{ mg} = 2.5 \text{ mL} \quad 1\% = 1 \text{ g in } 100 \text{ mL}$$

$$5) \frac{\text{mL}}{0.4 \text{ mg}} 0.5 \text{ mg} = 1.3 \text{ mL}$$

$$6) 13 \text{ units}$$

$$7) \frac{1 \text{ mL}}{0.5 \text{ MEU}} 1.2 \text{ MEU} = 2.4 \text{ mL}$$

$$8) 1:1000 = 1 \text{ g in } 1000 \text{ mL}$$

$$\frac{1000 \text{ mL}}{1 \text{ g}} \frac{1 \text{ g}}{1000 \text{ mg}} \frac{1 \text{ mg}}{1000 \text{ mcg}} 500 \text{ mcg} = \frac{500,000}{100,000} = 0.5 \text{ mL}$$

- 9a.) 2 mL Sterile water or Sodium Chloride
- 9b.) 1g/2.6 mL
- 9c.) 2.6 mL
- 9d.) 2.6 mL
- 9e.) Nothing
- 9f.) Discard in sharps

- 10a.) 1.8 mL
- 10b.) 250mg/mL
- 10c.) 1.2
- 10d.) 1.2
- 10e.) Discard vial, use within 1hr
- 10f.) NO, Sharps b.h.

Chapter 6: Calc. of Basic IV Drips (3)

- Proficiency Test 1

$$1a.) \frac{100\text{ml}}{150\text{ml}} = 7 \text{ hours}$$

$$1b.) \frac{150 \times 10}{60} = 25 \text{ gtt/min Macrodr:p}$$

$$\frac{150 \times 60}{60} = 150 \text{ gtt/min Microdrip}$$

1c.) Macro tubing

2a.) Micro tubing

$$2b.) \frac{100\text{ml} \times 60\text{min}}{360\text{min}} = 17 \text{ gtt/min}$$

3a.) Drain 100ml out of bag or set Pump to 150ml

3b.) 3hrs = 180 min

$$\frac{150 \times 15 \text{ gtt}}{180 \text{ min}} = 13 \text{ gtt/min}$$

$$\frac{150 \times 60 \text{ gtt}}{180} = 50 \text{ gtt/min}$$

MICRODRIP

3c.) 50 gtt/min

4a.) 12 hrs = 1440 min

$$\frac{500 \times 60}{1440} = 21 \text{ gtt/min}$$

$$5a) \frac{250 \text{ mL} \times 10 \text{ gtt}}{60} = 42 \text{ gtt/min}$$

b) 250 mL DSW + 100mg Powder, set Pump to 1hr

b) 500mg/5mL to make 500mg in 250mL DSW

$$b) \frac{250 \text{ mL}}{8} = 31 \text{ gtt/min}$$

$$7) \frac{125 \times 20}{= 2500 \text{ mL}} \quad (24-4)$$

= 2800 mL Parental intake

$$\frac{75 \text{ mL} \times 4}{300}$$

8a) 90 mL/hr

8b) 11 hours

a) 50mg/hr

10a) 75mL DSW
75mL/hr
50mL/hr

Self Test 4 # 1-2

(4)

- 1a) Yes, $20\text{mg}/\text{m}^2 \times 1.96 = 39\text{mg}$
- 1b) Set Pump to $500\text{mL}/\text{hr}$, stop at 250mL
- 2a) $130\text{mg}/\text{m}^2 \times 1.77\text{m}^2 = 230\text{mg}$, Yes
- 2b) $2 \text{ } 100\text{mg} \text{ Tabs} = 200\text{mg} + 3 \text{ } 10\text{mg} \text{ tabs}$
 $= 230\text{mg}$
- Two 100mg tablets + 3 10mg tablets = dose.