Bethel College
Fundamentals of Nursing
Math/Drug Proficiency Fall Review 1 KEY

Calculate the following problems. Unless indicated, all medications involving mL greater than 1 should be rounded to the nearest tenth. Answers in mL that are less than 1 should be rounded to the nearest hundredth. All answers involving tablets should be recorded in terms of # of tabs (or ½ tabs).

1. 15 mL = _____**0.5**_____oz.

X oz = 1 oz/30 mL x 15 mL/1

2. 60 mg = gr_____**1**_____.

gr X = gr 1/60 mg x 60 mg/1

3. 4 t = _____**20**_____mL.

X mL = 5 mL/1 t x 4 t

4. Prepare 660 mg of Duroquin. The tablets available are 330 mg. Give _____**2**_____tab.

X tab = 1 tab/330 mg x 660 mg/1

5. Glubionate -Ca syrup has a strength of 300 mg per 15 mL. Prepare a 0.5 g dosage. Give _____**25**_____mL.

X mL = 15 mL/300 mg x 1000 mg/1 g x 0.5 g/1

6. Chloral hydrate capsules have a strength of gr 3 3/4. Prepare a 500mg dosage. Give_____**2**_____cap.

X cap = 1 cap/gr 3 ¾ x gr 1/60 mg x 500 mg/1

7. Prepare a 25 mEq dosage of KCL (Potassium chloride) from a strength of 40 mEq per 30 mL. Give _____**18.8**_____mL.

X mL = 30 mL/40 mEq x 25 mEq/1

8. The heparin solution available is 2500 units per mL. Draw up 1500 units dosage. Give _____**0.6**_____mL.

X mL = 1 mL/2500 units x 1500 units/1

9. Prepare a gr 3/4 dosage of IM codeine from a solution with a strength of gr 1/2 per ml. Give _____**1.5**_____mL.

X mL = 1 mL/gr ½ x gr ¾/1

10. Ampicillin powder requires the addition of Saline prior to its IM administration. The label includes directions which could result in 3 DIFFERENT concentrations of this medication.

IT IS UP TO THE NURSE TO DETERMINE HOW TO PREPARE THIS MEDICATION FOR ADMINISTRATION.

Amount Saline Added	***Resulting Dosage Strength***
19.8 mL	100 mg/mL
16 mL	125 mg/mL
10.4 mL	300 mg/mL

A. The order is for a single IM dose of 200 mg. Which of the three dosage strength would you prepare? ___**100, 125, 300**___mg/mL.

B. How much saline would you add in order to result in this dosage strength? _____**19.8, 16, 10.4**_____mL.

C. How many mL of reconstituted medication would you need to draw up from this vial to provide your client with the 200 mg dose? ___**2, 1.6, 0.67**___mL.

X mL = 1 mL/100 mg x 200 mg/1

X mL = 1 mL/125 mg x 200 mg/1

X mL = 1 mL/300 mg x 200 mg/1

11. Aventyl 20 mg oral solution is ordered. Solution strength is 10 mg in 5 mL. Give _____**10**_____mL.

X mL = 5 mL/10 mg x 20 mg/1

12. The order is for Atropine 0.4 mg subcutaneous on call to surgery. Available is Atropine gr 1/200 per 2 mL. How many mL will you give? _____**2.7**_____mL.

X mL = 2 mL/gr 1/200 x gr 1/60 mg x 0.4 mg/1

13. The physician orders Keflex 1 gram stat, then 500 mg qid. The Keflex you have is Keflex 500 mg capsules. How many capsules will you give for the stat dose? _____**2**_____cap.

X cap = 1 cap/500 mg x 1000 mg/1 g x 1 g/1

14. Codeine Tablets have a strength of 30 mg. Prepare a gr ¼ dosage. Give _____**0.5**_____tab.

X tab = 1 tab/30 mg x 60 mg/gr 1 x gr ¼/1

15. The order is for Aminophyllin 300 mg PO. The stock Aminophyllin is 0.1 g tablets. How many tab will you need to give the client? _____**3**_____tab.

X tab = 1 tab/0.1 g x 1 g/1000 mg x 300 mg/1

16. The physician has ordered Feosol Elixir 300 mg PO. You have Feosol Elixir 220 mg/5 mL. How many mL will you give? _____**6.8**_____mL.

X mL = 5 mL/220 mg x 300 mg/1

17. The physician ordered Erythromycin 150 mg PO. The label states: Erythromycin 0.75 g/5 mL. How many mL should be administered? _____**1**_____mL.

X mL = 5 mL/0.75 g x 1 g/1000 mg x 150 mg/1

18. Your client has a gastrostomy tube and is receiving 4 oz feeding every 4 hours which is followed by 30 mL water flush each time. How many mL will this client receive in 1 feeding? _____**150**_____mL.

X mL = 30 mL/1 oz x 4 oz/1 = 120 mL + 30 mL

19. The order is for PenVeeK 600,000 units per os (per mouth). You have 250 mg (400,000 units) per 5 mL. How many mL will you give? _____**7.5**_____mL.

X mL = 5 mL/400,000 units x 600,000 units/1

20. Ceclor 175 mg PO is ordered q 8 hours. The label states: Ceclor 250 mg/5 mL. How many mL should be administered? _____**3.5**_____mL.

X mL = 5 mL/250 mg x 175 mg/1

21. You have orders to give Digoxin 0.125mg. The ampule comes labeled 500 mcg per 2 mL. How much will you administer? _____**0.5**_____mL.

X mL = 2 mL/500 mcg x 1000 mcg/1 mg x 0.125 mg/1

22. You have orders to give Synthroid 0.3mg. The tablets come labeled 150 mcg. How many will you administer? _____**2**_____tab.

X tab = 1 tab/150 mcg x 1000 mcg/1 mg x 0.3 mg/1