N301 Adult Health I

Lab Week 1

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Math Practice Questions

1. Express the following number to the nearest hundredth.

   a. 2.345 2.35

2. Solve the following equation. Express your answer to the nearest tenth.

   a. 55 x 0.15 8.3

3. Solve the equation. Express your answer as a decimal fraction to the nearest tenth.

   a. 0.114 x 3.2 0.4

4. You are to give 1,250 mg of a medication and you receive 250 mg tablets from the pharmacy. How many tablets would you administer?

   a. 5 tabs

   $\frac{\text{HAVE}}{\text{NEED}}$ $\frac{250mg}{1250mg} = 5 tabs$

5. You have to administer a combination drug that combines ~~25 mg of medication A~~ and 6.25 mg of medication B. Pharmacy has given ~~you 12.5 mg tablets of medication A~~ and 12.5 mg of medication B. How many tablets of medication B would you given?

   a. 0.5 ~~0~~ tabs

   $\frac{\text{HAVE}}{\text{NEED}}$ $\frac{12.5mg}{6.25mg} = \overset{0.5}{\cancel{0}} tabs$

6. You have to administer a prescription that combines two separate drugs of 50 mg of medication A and ~~12.5 mg of medication B~~. Pharmacy has given you 25 mg tablets of medication A and ~~6.25 mg of medication B~~. How many tablets of medication A would you give?

   a. 2 tabs

   $\frac{\text{HAVE}}{\text{NEED}}$ $\frac{25mg}{50mg} = 2 tabs$

7. Express 750 mg in g

   a. .75g

   $\frac{1g}{1000mg} = \frac{.75}{750mg}$

8. Express 0.75 mg in mcg

   a. 750mcg

   $\frac{1mg}{1000mcg} = \frac{.75mg}{750mcg}$

9. The nurse needs to infuse 250 mL over 45 minutes by infusion pump. At what rate per hour does the nurse set the pump?

   a. 333mL/hr — HAVE 250mL / NEED 45min = 333mL/hr / 60min

10. The doctor has ordered 1 liter D5W (IV fluid solution 5% dextrose and water) over 12 hours. At what rate per hour does the nurse set the pump?

    a. 83mL/hr — 1000mL / 12hr = 83mL / 1hr

11. Convert these body weights into kilograms. Round to the nearest tenth.

    a. 44.5 lbs = 44.5 lbs | 2.2 = 20.2 kg
    b. 154 lbs = 154 | 2.2 = 70 kg
    c. 540 lbs = 540 | 2.2 = 245.5 kg
    d. 123 lbs = 123 | 2.2 = 55.9 kg

12. A doctor orders 75 mg of ceftriaxone to be taken by ~~a 15 pound infant twice a day~~. The pharmaceutical reference states that 50-75 mg/kg/day is the appropriate dosage range. Is this doctor's orders within the desired range?

    a. Yes

13. The most commonly used parenteral administration routes are: → injected or infused

    a. ~~Sublingual~~, intravenous, ~~transdermal~~
    b. Intravenous, intramuscular, and subcutaneous
    c. Intravenous, ~~inhalation, and subcutaneous~~

14. Insulin can be administered by what other routes?

    a. Subcutaneous, intravenous, self-administered pens
    b. Intramuscular~~, inhalation,~~ intradermal
    c. Subcutaneous, intradermal~~, sublingual~~

15. One balanced electrolyte solution is which of the following?

    a. D5NS

b. LR

c. 0.9% NSS

d. 0.45% NSS

$\frac{250mg}{10mL} \quad \frac{13.5mg}{0.54mL}$

16. Identify which of the following solutions is the weakest?

a. 1:1000

b. 1:10,000

c. 1:5

17. There are two bottles of milk of magnesium on the shelf at the pharmacy. One bottle contains 9.5 oz and the other 300 mL. Which has the larger volume?

a. 300mL

$\frac{1oz}{30mL} = \frac{9.5oz}{285mL}$

18. The recommended dose of Dilantin for a child is 3 mg/kg/~~24 hr given every 12 hours~~. The patient's weight is 10 lbs. The medication is supplied in 250 mg/10 mL.

HAVE $\frac{250mg}{10mL}$ $\frac{13.5mg}{}$

a. Calculate the weight for the child in kg 10lbs/2.2=4.5kg

$\frac{3mg}{1kg} = \frac{13.5mg}{4.5kg}$

b. Calculate the safe dose for the child in mg/dose 13.5mg

c. How many milliliters will be administered for each dose? 0.54mL

$\frac{1mg}{1000mL} = \frac{13.5mg}{13500mL}$

19. The patient is ordered Tylenol elixir ~~at 325 mg~~ per 2 teaspoons (tsp.) How many mL would the nurse administer?

a. 10mL

$\frac{1tsp}{5mL} = \frac{2tsp}{10mL}$

20. An IV medication of 250 mL is started ~~at 0750~~ to run at 33 gtts/min using a 10 gtts/mL set. How long will the infusion run?

a. 1hr 26 min

$\frac{250mL}{33gtts/min}$

$\frac{250mL}{10gtts/mL} = 25$

$\frac{33gtts}{10gtts} = \frac{1min}{3.3gtts/min}$

HAVE / NEED

$\frac{3.3gtts}{1min} = \frac{250mL}{15gtts}$