$X = \frac{DV}{H}$

1oz = 2T = 6tsp = 30mL
2C = 1P = 16oz = 480mL

Dosage Calculation Worksheet #1

1. An individual is taking cough suppressant that contains codeine 10 mg in 5 mL. If the individual took 12 tsp of the medication during a 24-hour period, how many milligrams of codeine would have been taken?

$\frac{30mL}{6tsp} = \frac{X}{12tsp} = 60mL \rightarrow \frac{60mL}{X} = \frac{5mL}{10mg} = 120mg$

2. The nurse is to give 10 mcg/kg/min of a medication. The patient weighs 80 kg. How many mcg will the nurse give in 15 minutes?

$80\,kg \times 10\,mcg = 800\,kg/mcg \times 15 = 12000\,mcg$

3. Calculate the individual dose in mg a medication to be administered in six divided doses if a patient weighs 35 pounds and is to be given 40 mg/kg/day. Round kg to nearest 10th.

$35lb/2.2 = 15.9\,kg \rightarrow 15.9 \times 40 = 636\,mg/day$

$636/6 = 106\,mg/dose$

4. The medication order is to administer naloxone (Narcan) 1.5 mcg/kg STAT. The child weighs 36.3 pounds. How many mg of Narcan will the nurse give to the child?

$36.3/2.2 = 16.5\,kg \rightarrow 16.5\,kg \times 0.0015\,mg = 0.02\,mg$

5. An individual is taking an antibiotic that contains penicillin (PCN) 180 mg in 5 mL. If the individual took 21 tsp of the medication in 7 days, how many milligrams of PCN would have been taken?

$\frac{21tsp}{X} = \frac{6tsp}{30mL} = 105mL$

$\frac{105mL}{X} = \frac{5mL}{180mg} = 3780mg$

$X = \frac{DV}{H}$

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6. Medication order: Cephalexin 375 mg PO tid. How many grams will the patient receive each 24 hours?

375
× 3
1125mg → 1.1g

7. Medication order: Unipen 750 mg IM q6h (4/day)
Available: Unipen add 4 mL sterile water to make 1 g/2.5 mL
How many mL of the reconstituted solution will you administer?

$\frac{(750mg)(2.5mL)}{1000mg} = 1.875mL = 1.9mL$

8. Medication order: Zaroxolyn 7.5 mg PO bid. Available: Zaroxolyn 5 mg tablets. How many tablets will you administer?

$\frac{(7.5mg)(1t)}{5mg} = 1.5 \text{ tablets}$ ← dose

3 tablets/day

didn't know if wanted dose or per day so I did both

9. Medication order: Erythromycin 125 mg via gastric tube tid. Available: Erythromycin 250 mg/5 mL
How many mL will you administer?

$\frac{(125mg)(5mL)}{250mg} = 2.5mL$ (single dose)
× 3
7.5mL/day

10. Medication order: Capoten 100 mg. Available: Capoten 0.1 g tablets.
How many tablets will you administer?

$\frac{(100mg)(1tab)}{100mg} = 1 \text{ tablet}$

11. Change 128 oz to L. Round final answer to a whole number.

$\frac{1\text{ oz}}{30\text{mL}} = \frac{128\text{ oz}}{X} = 3840\text{mL} / 1000 = 3.84\text{ L} = \boxed{4\text{L}}$

12. Medication order: heparin 2500 units/hr. Drug available: heparin 20,000 units in 250 mL D5W. At what rate will you set your pump?

$\frac{20000}{250} = 80\text{ units/mL} \rightarrow \frac{2500}{80} =$

$\boxed{31.25\text{mL/hr}}$

13. Penicillin G Procaine (Wycillin) contains 300,000 units/mL. How many units would there be in 2.5 mL?

$300000\text{ unit} \times 2.5\text{mL} = \boxed{750{,}000\text{ units}}$

14. The preoperative order is for atropine sulfate 0.15 mg. The supply of atropine sulfate is 0.4 mg/mL. How many mL will you prepare?

$\frac{(.15)(1)}{.4} = \boxed{.375\text{mL}}$

15. Medication order: Atropine 0.4 mg Sub-Q now. Drug available: atropine 5 mg per 10 mL. How many mL will you administer?

$\frac{(.4\text{mg})(10\text{mL})}{5\text{mg}} = \boxed{0.8\text{ mL}}$