gtt = drop factor   convert hr → min

Dosage Calculation Worksheet #2

→ Always in minutes

1. The IV order is for D$_5$W to infuse at 100 mL/hr. The drop factor is 10 gtt/mL. How many drops per minute (gtt/min) should the pump be set to run? Round final answer to whole number.

$$\frac{100 mL}{60} \times 10 gtts/mL = 16.66 → \boxed{17 \, gtt/min}$$

2. Medication order: Rocephin ~~1 g~~ IV every ~~12 hours~~ over 30 minutes. Available: rocephin ~~1 g~~ in 150 mL NS. At what rate would you set your pump?

$$\frac{150 mL}{0.5} = \boxed{300 ml/hr}$$

3. Medication order: Vistaril 20 mg IM q4h PRN for nausea. The ~~10 mL~~ vial that you have available is labeled 25 mg/mL. How many mL will you draw up to give?   D: 20mg   H: 25mg

$$\frac{25mg}{1mL} \quad \frac{20}{25} \times 1 = \boxed{0.8 mL}$$

4. Medication order: Haldol 3 mg IM q6h PRN for agitation. The 1 mL vial that you have available is labeled 5 mg/mL. How many mL will you draw up to give?   D: 3mg   H: 5mg   V: 1mL

$$\frac{3}{5} = \boxed{0.6 mL}$$

5. Medication order: heparin 5000 units subQ every 12 hours. Drug available: heparin 10,000 units/2 mL. How many mL will you administer for the day?

$$\frac{D}{H} \times V \qquad \frac{5000}{10,000} \times 2 = \boxed{1 mL}$$

6. A patient has an order for 200 mg q8h of cimetidine (Tagamet) to be administered intramuscularly. The vial of ~~8 mL~~ contains 300 mg per 2 mL. How many mL would you give q8h?

$$\frac{200 mg}{300 mg} \times 2 mL = \boxed{1.3 mL}$$

7. Medication order: Garamycin 80 mg IVPB over 30 minutes. Available: Garamycin (gentamicin sulfate) 80 mg in 50 mL of D$_5$W. Calculate the flow rate in mL/hr.

$$\frac{80 mg}{0.5} = \boxed{100 mL/hr}$$

8. You have an IV infusing at 125 mL/hr. How long will it take 1500 mL to infuse?

$$\frac{1500\ mL}{X} = 125\ mL$$

$$\begin{array}{r} 1500 \\ \div 125 \\ \hline 12 \end{array}$$

12 hr

9. Medication order: rocephin g 1 IV every 12 hours over 30 minutes. Available: rocephin 1 g in 150 mL NS. At what rate would you set your pump?

$$\frac{150}{0.5} = \boxed{300\ ml/hr}$$

10. An infusion pump is set to administer 75 mL/hr to a patient. How many hours will it take for the patient to receive 600 mL of fluid?

8 hr

$$\frac{75\ mL}{X} = 600\ mL$$

$$\begin{array}{r} 600 \\ \div 75 \\ \hline 8 \end{array}$$

11. A patient is to receive lidocaine hydrochloride (Xylocaine) 100 mg as an intravenous bolus. The Xylocaine is labeled 20 mg/mL. How many milliliters should be administered?

$$\frac{D}{H} \times V$$

$$\frac{100\ mg}{20\ mg} \times 1\ mL = \boxed{5\ mL}$$

12. Medication order: 50 mg/kg/day. Patient weight: 85.8 pounds. The patient will receive _____ mg/day.

lbs → kg ÷ 2.2

$$85.8 ÷ 2.2 = 39\ kg$$

$$50 \times 39 = \boxed{1,950\ mg\ /day}$$

13. Medication order: Amoxicillin 2.5 mL every 8 hours. Available is Amoxicillin 250 mg/5mL. The nurse will administer how many mg for the day?

3 x a day

$$\frac{D}{H} \times V$$

$$\frac{(2.5\ mL)(250)\ mL}{250\ mg} = 125\ mg \times 3 = \boxed{375\ mg}$$

14. Medication order: Ondansetron 2 mg – 4 mg/kg/Q 4 hours po PRN nausea.

min   max

The patient weighs 66 lbs. What is the **minimum** amount of medication in **grams** that can be administered every 4 hours?   30 X 2 = 60

lbs → kg ÷ 2.2

$$66 ÷ 2.2 = 30\ kg$$

$$\nu mg\ /30\ kg = 60\ mg \longrightarrow \boxed{0.06\ g}$$

15. Medication order: 5 mL of normal saline is added to a vial of Lasix 20 mg/5 mL. How many milligrams of Lasix are in each millimeter of fluid?

___ = 1

$$\frac{1}{5} \times 20 = \boxed{4\ mg}$$