1. A nurse working on a hospital medical unit has a client on IV fluids. The healthcare provider has written a new prescription for 1500 mL D5W IV over 12 hours. What flow rate in mL/hr will the nurse set on the IV pump? **125mL/hr**

   1500 mL÷ 12 hours = 125 mL/hr

2. Your adult medical client has a new prescription for NS 1000 mL IV to infuse over 8 hours. The drop factor of your IV set is 20 gtts/mL. What is your flow rate in gtts/min? Round to a whole number. **42 gtts/min**

   1000 mL ÷ 480 minutes × 20 gtts = 42 gtts/min

3. Your client has a prescription for 1000 mL NS IV. You will need to use the gravity method of infusion. Your IV tubing set has a drop factor of 20 gtts/mL. You will use an infusion rate of 20 gtts/min. What is the approximate infusion time for the IV fluid in hours? Round to a whole number. **17 hrs**

   1000 mL ÷ 60 mins × 20 gtts = 333.333… = 33.3

   333.3 ÷ 20 gtts = 16.7 = 17 hours

4. A hospitalized client has a new prescription for 500 mL NS IV over 3 hours. What flow rate in mL/hr will the nurse set on the IV pump? Round answer to a whole number. **167mL/hr**

   500 mL ÷ 3 hours = 167 mL/hr

5. A nurse is administering 1500 mL D5W IV to a client by gravity using a rate of 40 gtts/min. The IV tubing has a drop factor of 15 gtts/mL. What is the approximate infusion time for the IV fluid in hours? Round answer to a whole number. **9 hours**

   1500 mL ÷ 60 min × 15 gtts = 375 gtts/min

   375 ÷ 40 gtts = 9.375 = 9 hrs

6. Your client has a prescription for Zosyn 3.375 g in 250 mL NS IV over 2.5 hours four times daily. What flow rate in mL/hr will you set on the IV pump? **100mL/hr**

   250 mL ÷ 2.5 hrs = 100 mL/hr

7. A client has a new prescription for D5W 1000 mL IV to be given over 6 hours. The drop factor of your IV set is 20 gtts/mL. What is your flow rate in gtts/min? Round to a whole number. **56 gtts/min**

   1000 mL ÷ 360 mins × 20 gtts = 56 gtts/min

8. A nurse is administering medication in 500 mL NS IV to a client by gravity using a rate of 35 gtts/min. The IV tubing has a drop factor of 20 gtts/mL. What is the approximate infusion time for the IV fluid in hours ? Round answer to a whole number. **5 hours**

   500 mL ÷ 60 mins × 20 gtts = 166.666…

   166.666… ÷ 35 = 4.761 = 5 hrs

9. Your client has a prescription for minocycline hydrochloride ER tablets 135 mg PO daily for 12 weeks. Your client weighs 115 lb. Drug information: safe dose range is 1-2 mg/kg for ER tab PO daily for 12 weeks. Do not split, chew or crush these tablets. You have on hand minocycline HCl ER tabs in 50, 60 and 75 mg. **52.3 mg – 104.5 mg; hold and call HCP d/t dose being over the recommended range**

   115 lbs = 52.3 kg

   52.3 kg × 1 = 52.3 mg

   52.3 kg × 2 = 104.5

10. A nurse working on a hospital critical care unit has a client on IV fluids. The healthcare provider has written a new prescription for amiodarone 360 mg over six hours on a microdrip pump. Amiodarone 360 mg is contained in 500 mL NS. The drop factor for the IV tubing is 60 gtts/mL. What flow rate in mL/hr will the nurse set on the IV pump? Round to a whole number. **83 mL/hr** What flow rate in gtts/min would the nurse use for a gravity infusion? **83 gtts/min**

    500 mL ÷ 6 hrs = 83 mL/hr

    500 mL ÷ 360 mins × 60 gtts = 83 gtts/min

11. Your client has a prescription for 1000 mL LR IV over 8 hours. What flow rate in mL/hr will you set on the IV pump? **125mL/hr**

    1000 mL ÷ 8 hrs = 125 mL/hr

12. A client has a prescription for 500 mL of NS to be given over 2 hours to deliver a medication. The drop factor of your IV set is 15 gtts/mL. What is your flow rate in gtts/min? Round to a whole number. **63 gtts/min**

    500 mL ÷ 120 mins × 15 gtts = 63 gtts/min

13. A nurse is administering medication in 1000 mL NS IV to a client by gravity using a rate of 30 gtts/min. The IV tubing has a drop factor of 20 gtts/mL. What is the approximate infusion time for the IV fluid in hours and minutes? Round answer to a whole number. **11 hours**

1000 mL ÷ 60 min × 30 gtts = 333.333…

333.333 ÷ 30 gtts = 11.111 = 11 hrs

14. A client is receiving 500 mL NS IV containing an antibiotic. The fluid is to infuse over 3 hours. The drop factor of your IV set is 15 gtts/ml. What is the initial flow rate of the IV fluid? Round to a whole number. **42 gtts/min**

    500 mL ÷ 180 min × 15 gtts = 42 gtts/min

15. Your client has a prescription for norepinephrine 360 mcg in 250 mL LR over 3 hours using a micropump. What flow rate in mL/hr will you set on the IV pump? Round to a whole number. **83 mL/hr** The drop factor for the IV tubing is 60 gtts/mL. What flow rate in gtts/min would you use for a gravity infusion? **83 gtts/min**

    250 mL ÷ 3 hrs = 83 mL/hr

    250 mL ÷ 180 mins × 60 gtts = 83 gtts/min

16. A hospitalized client has a new prescription for 2000 mL NS IV over 24 hours. What flow rate in mL/hr will the nurse set on the IV pump? Round to a whole number. **83 mL/hr**

    2000 mL ÷ 24 hrs = 83 mL/hr

17. A client has a prescription for LR 500 mL IV to be delivered at the rate of 75 mL per hour. The drop factor of your IV set is 20 gtts/mL. What is your flow rate in gtts/min? Round to a whole number. **25 gtts/min**

    500 mL ÷ 75 mL = 6.6 hrs
    500 mL ÷ 396 × 20 gtts = 25 gtts/min

18. A client is receiving 1000 mL D5W IV over 8 hours. The IV tubing drop factor is 20 gtts/mL. What is the initial flow rate in gtts/min? Round to a whole number. **42 gtts/min**

    1000 mL ÷ 480 mins × 20 gtts = 42 gtts/min

19. Your client has a prescription for 1000 mL NS IV. You will need to use the gravity method of infusion. Your IV tubing set has a drop factor of 15 gtts/mL. You will use an infusion rate of 20 gtts/min. What is the infusion time for the IV fluid in hours and minutes? **12 hours and 30 mins (12.5 hrs)**

1000 mL ÷ 60 mins × 15 gtts = 250 gtts/min

250 ÷ 20 gtts = 12.5 hours

20. A hospitalized client on the critical care unit has a new prescription for sotalol 150 mg IV in 500 mL D5W over 4.5 hours by micropump. What flow rate in mL/hr will the nurse set on the IV pump? Round to a whole number. **111.1mL/hr** The drop factor of the IV tubing is 60 gtts/mL. What flow rate in gtts/min would you use for a gravity infusion? **111 gtts/min**

    500 mL ÷ 4.5 hours = 111 mL/hr

    500 mL ÷ 270 mins × 60 gtts = 111 gtts/min

21. A nurse is administering medication in 1000 mL LR IV to a client by gravity using a rate of 20 gtts/min. The IV tubing has a drop factor of 10 gtts/mL. What is the infusion time for the IV fluid in hours and minutes? **8 hours and 20 mins (8.333 hours)**

    1000 mL ÷ 60 mins × 10 gtts = 166.666…
    166.666 ÷ 20 gtts = 8.3 hours

22. A nurse working on a hospital medical unit has a client on IV fluids. The healthcare provider has written a new prescription for moxifloxacin 400 mg in 1000 mL D5W IV over 9 hours daily for 14 days. What flow rate in mL/hr will the nurse set on the IV pump? Round to a whole number. **111 mL/hr**

    1000 mL ÷ 9 hours = 111 mL/hr

23. A client has a prescription for 250 mL of NS to be given over 1 hour to deliver a medication. The drop factor of your IV set is 15 gtts/mL. What is your flow rate in gtts/min? Round to a whole number. **63 gtts/min**

    250 mL ÷ 60 mins ×15 gtts = 63 gtts/min

24. Your client is receiving 1000 mL NS IV over 8 hours. The drop factor of your IV set is 15 gtts/mL. What is the initial flow rate of the IV fluid? **31 gtts/min**

    1000 mL ÷ 480 mins × 15 gtts = 31 gtts/min

25. A hospitalized client has a new prescription for 750 mL D5W IV via microdrip pump over 8 hours. The D5W contains isoproterenol 480 mcg. What flow rate in mL/hr will the nurse set on the IV pump? Round to a whole number. **93 mL/hr** The drop factor for the IV tubing is 60 gtts/mL. What flow rate in gtts/min would the nurse use for a gravity infusion? **93 gtts/min**

    750 mL ÷ 8 hrs = 93 mL/hr

    750 mL ÷ 480 mins × 60 gtts = 93 gtts/min

26. Your client has a prescription for vasopressin 14.4 units IV in 750 mL NS over 6 hours using a micropump. What flow rate in mL/hr will you set on the IV pump? **125 mL/hr** The drop factor for the tubing is 60 gtts/mL. What flow rate in gtts/min would you use for a gravity infusion? **125 gtts/min**

    750 mL ÷ 6 hrs = 125 mL

27. A client has a prescription for LR 1000 mL IV to be delivered at the rate of 125 mL per hour. The drop factor of your IV set is 15 gtts/mL. What is your flow rate in gtts/min? Round to a whole number. **31 gtts/min**

    1000 mL ÷ 125 mL = 8 hrs

    1000 mL ÷ 480 mins × 15 = 31 gtts/min

28. A client is receiving 750 mL NS IV containing an antibiotic. The fluid is to infuse over 6 hours. The drop factor of your IV set is 10 gtts/mL. What is the initial flow rate of the IV fluid? Round to a whole number. **21 gtts/min**

    750 mL ÷ 360 mins × 10 gtts = 21 gtts/min

29. A client has a prescription for D5W 300 mL IV to be delivered at the rate of 100 mL per hour. The drop factor of your IV set is 20 gtts/mL. What is your flow rate in gtts/min? Round to a whole number. **33 gtts/min**

    300 mL ÷ 100 mL = 3 hrs

    300 mL ÷ 180 mins × 20 gtts = 33 gtts/mL

30. Your client is receiving 1000 mL LR IV over 8 hours. The drop factor of your IV set is 20 gtts/mL. What is the initial flow rate of the IV fluid? Round to a whole number. **42 gtts/min**

    1000 mL ÷ 480 mins × 20 gtts = 42 gtts/min