

## MATH EXAM

Rules for rounding:

- If the problem is an IV drip rate, only a whole number can be used.
- If the medication would be given via an IV pump, use a whole number.
- If the medication would be administered via a small syringe (such as a 1cc syringe) then two decimal places would be included.
- Answers expressed in mg/min., mcg/min., mg/kg/min., mcg/kg/minute, etc... are expressed including two decimal places (i.e. 23.45 mcg/kg/minute).

1. Doctor's order: Lasix 50mg IV push Q day

Available: Lasix 10 mg/mL

How many milliliters per dose should you give? \_\_\_\_\_mL.

2. Doctor's order: Heparin 7000u SQ now.

Available: Heparin 10,000u/mL

How many milliliters per dose should you give? \_\_\_\_\_mL

3. Doctor's order: 1gm of Vancomycin IVPB, over 1.5 hr., q 12hr.

Solution available 1 gm Vancomycin in 150mL of 0.09% NS

What rate would you set on the pump? \_\_\_\_\_mL/hr

4. Doctor's order: Nafcil 500mg q4hr. IVPB to be infused in 30 min.

Solution available: Nafcil 500mg in 50mL D<sub>5</sub>W.

Macro drip tubing is available (15gtt/ml). What is the IV rate? \_\_\_\_\_gtts/min

5. Doctor's order: Packed red blood cells (PRBC) one unit to be infused in 2 hours.

The unit of PRBC contains 344 mL

Blood tubing is available (10gtt/mL). What is the IV rate? \_\_\_\_\_gtts/min

6. Doctor's order: Lidocaine @ 2.0 mg/min.

Drug available: Lidocaine 2gm/250mL D<sub>5</sub>W.

What rate would you set on the pump? \_\_\_\_\_mL/hr

7. Doctor's order: Procainamide Hydrochloride @ 2.0mg/min.

Drug available: Procainamide Hydrochloride 1gm/250mL D<sub>5</sub>W.

What rate would you set on the pump? \_\_\_\_\_mL/hr

8. Doctor's order: Heparin 3,000 u/hr IV.  
Drug available: Heparin 25,000 u/500mL 0.09% NS  
What rate would you set on the pump? \_\_\_\_\_ mL/hr

9. Lidocaine 2gm/250 D<sub>5</sub>W is infusing @ 20ml/hr.  
How many milligrams per minute is the patient receiving? \_\_\_\_\_ mg/min

10. Doctor's order: Start Nitroglycerine IV @ 40mcg/min.  
Drug available: 50mg Nitroglycerine/250mL D<sub>5</sub>W  
What rate would you set on the pump (mL/hr)? \_\_\_\_\_ mL/hr

11. Doctor's order: Start Dopamine @ 5mcg/kg/min.  
Drug available: 400mg/250mL 0.09% NS. Client weight: 154 lbs.  
What rate would you set on the pump (mL/hr)? \_\_\_\_\_ mL/hr

12. Doctor's order: Start Nipride @ 1mcg/kg/min.  
Drug Available: Nipride 50mg/250mL D<sub>5</sub>W. Client weight: 198 lbs.  
What rate would you set on the pump (mL/hr)? \_\_\_\_\_ mL/hr

13. Dopamine 400mg/250 D<sub>5</sub>W is running at 25mL/hr. Client weight: 143 lbs.  
What is the dose in mcg/kg/min? \_\_\_\_\_ mcg/kg/min

14. Doctor's order: Dobutamine 3mcg/kg/min  
Available drug: Dobutamine 250mg/250cc D<sub>5</sub>W. Client weight: 176 lbs.  
What rate would you set on the pump (mL/hr)? \_\_\_\_\_ mL/hr

15. Nitroglycerin 50mg/250cc D<sub>5</sub>W is running at 20mL/hr.  
How many micrograms per minute is the client receiving? \_\_\_\_\_ mcg/min