

Answer to the Practice Math Test!

1. 1 ounce is equivalent to 30 cc's.
2. 1 pound is equivalent to 2.2 kg. This 124 pound woman weighs 56.36 kg.
3. If she is ordered to receive 10 mcgs/kg/min of an IV infusion, you would calculate $10 \text{ mcgs} \times 56 \text{ kgs}$. And infuse the IV at 560 kg's/min (FYI: There are, of course, 60 mins in each hour so divide 560 by 60 to get 9.3 cc/hour)
4. The order is to give 250 mg of the medication at bedtime. The bottle reads 250 mg/5 ml. You need to know that 5ml equals 1 teaspoon and inform her to give 1 teaspoon of the medicine at bedtime.
5. 5 grains of Aspirin is 325 mgs. (One aspirin)
6. There are 60 mgs in 1 grain.
7. Given the above information in question 6, you should now know that an order for codeine sulfate 1 grain would require you to give 1 of the tablets labeled codeine sulfate 60.0 mgs. To Mrs. Lind.
8. If the syringe is labeled as 125 mgs/2 cc and the patient is to receive 50 mgs of the medication, you would draw up 0.8 cc's
9. To infuse the 50 cc's of D5W containing the 1 gram of ancef over $\frac{1}{2}$ hour, please remember this formula: $\frac{\text{The amount (50 cc)} \times \text{drip rate (10 drops/ml)}}{\text{divided by the time (30/mins)}}$. You should calculate the drip rate at 16.7 drops per minute.
10. As above, take the amount of fluid (1000 cc) x drip rate (10 drops/ml) and divide it by time (8 hours = 480 mins) to get a drip rate of 20.8 drops/min.
11. Vancomycin: $\frac{\text{The amount (100 cc)} \times \text{the drip rate (10 drops/ml)}}{\text{divided by the time (2 hours = 120 mins)}}$ gives you a drip rate of 8.3 drops/ min.

Gladys would receive 1 cc of Demerol (50 mg/ml) and $\frac{1}{2}$ cc of Vistaril (50 mg/ml) for a total amount of 1 and $\frac{1}{2}$ cc.
12. If there is 20 meq of KCL in 1000 cc, there would be 0.02 meq in each cc
Then $800 \text{ cc} \times .02 \text{ cc/ml}$ would be 16 meq of KCL.
13. THINK: 100 ml will be give in 30 mins ($\frac{1}{2}$ hour), then 200 ml will be given in 60 mins (1 hour). Set the IV pump flow rate at 200 cc/hour!

14. Remember the formula: Dose desired (1800 units/hour) divided by the dose on hand (20,000 units) x the quantity of solution (500 cc) = 45 cc/hr
15. There is 40,000 units of heparin in 1000 cc of D5W. You can calculate from this that each cc contains 40 units of heparin (40,000 divided by 1,000). From this point you can calculate that if each cc contains 40 units of heparin and Mr. Reynolds is getting 45 cc each hour, he's getting 1800 units/hr (40 x 45)
16. First calculate the dose this patient is receiving each hour. He's getting 30 mcgs/min or 1800 mcgs each hour (30 mcgs/min x 60 mins in an hour). Then use the formula: Desired dose (1800 mcgs/hr) divided by the dose on hand (50 mgs or 50,000 mcgs) x the amount of solution (500 cc) The pump should be at 18 cc/hr.
17. As discussed earlier, 1 grain is equivalent to 60 mgs. To give the desired dose in this question use the standard formula of dose desired (30 mg) divided by the dose on hand (1 grain or 60 mg) x quantity (1 tablet) You should give ½ tablet!
18. One grain is equivalent to 60 mgs. You are to give 10 grains or 600 mgs (10 x 60) If each aspirin is 325 mgs, you would give 2 aspirin.
19. Take the total volume of blood (700 cc) and divide by the time in minutes (8 hours is 480 minutes) and multiply by your drop factor (10 drops/ml) You would administer 14.5 drops per minute. OR obviously if you are using a pump, take the total cc's ordered (700) and divide by the total hours ordered (8 hours) to get 87.5 cc/hr.