Math Worksheet

1. A vial of ampicillin 500 mg is reconstituted with 4.5 mL sterile water to a dilution of 250mg/ mL. The patient is to receive 450 mg q 12 hours. How many mLs will be administered per dose?

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1. How many mLs of medication will be drawn up from a vial labeled famotidine 20mg/2mL to administer 15 mg of the medication?

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1. The nurse practitioner ordered that the patient is to receive adrenalin 0.7 mg subcut STAT. The medication is available in a vial labeled Adrenalin 2 mg/mL. How many mLs will be drawn up?

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1. The order is for Vamcomycin 750 mg IV to infuse over 45 minutes q8h. Vancomycin is available 750 mg/100 mL 0.9% Normal Saline.

At what rate would the nurse set the IV pump to deliver how many mL/hour to administer this medication?

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1. The patient takes Amoxicillin 10 mL q 8 hours. How many teaspoons does the patient take in 24 hours?

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1. The physician ordered Depakane 350 mg. po q12 hours. The medication is available in a syrup as 250mg/5mL. How many mLs will the patient receive in a 24 hour period?

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1. The nurse is to administer 375 mcg po daily. The medication is available in 0.125 mg tablets. How many tablets will the nurse administer to the patient with each dose?

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1. At what rate would the nurse set the IV infusion pump if the physician ordered the patient to receive 2000 mL of Lactated Ringers IV over 15 hours?

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1. Preoperatively, the patient is to receive 300 mcg IM 60 minutes prior to surgery. The medication is available as 0.2 mg /mL.

How much medication will the nurse draw up into the syringe to be administered?

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**Questions #10 – 12 apply to the following scenario.**

1. The physician ordered the patient to receive an IV of 1000 mL of 0.9%NS with 125 mg of Aminophylline to infuse at 125 mL per hour.

A 10 mL vial of Aminophylline (250 mg /10mLs) at a concentration of 25mg/mL is to be used. How many mLs of Aminophylline will be added to the 1000 mL solution?

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1. The intravenous tubing has a drip factor of 15 gtts /mL. What would the nurse set the minute drop rate required to infuse the solution at 125 mL/hour?

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1. How many mg of Aminophylline will the patient receive intravenously per hour?

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Use ratio proportion

1000 mL/125mg =125mL/X

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1. Vancomycin 2 gm/200mL is to infuse over 2 hours. It is to be infused via saline lock with a primary tubing having a drop factor of 60 gtts/mL. What would be the drip rate per minute to infuse this at the prescribed time?

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14. Order: verapamil hydrochloride SR 240 mg po daily.

How many caplets would you give?

(Hint: read label 240 mg=1 caplet🡫) 

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15. The endocrinologist prescribed levothyroxine 50 mcg, PO daily.

How many tablet(s) would you give?



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16. The patient is to receive carbanazephine 300 mg po TID. How many pills will the patient receive with each dose?



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17. The physician prescribed KCl 20 mEq po daily

How many tablets would you give?



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18. The nurse practitoner prescribed Cefaclor 375 mg. po q 12 hours. The patient will receive how many mLs in a 24 hour period?



(175 mg/5mL)

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19. How many hours would be required to infuse 500 mL IV at a rate of 125mL/hr?

(Hint: divide total volume to be infused over hourly rate.)

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20. An intravenous order of 1000 mL of Lactated Ringers is to infuse at 125 mL/hr is initiated at 6AM. What time should the infusion end?

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21. A 100 mL antibiotic solution must infuse IVPB over 45 minutes. The secondary tubing drop rate is 15 gtts/mL. What would the drip rate per minute to infuse this in the prescribed time?

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