IM 7 Math Module

Complete the required math problems and check your answers.

Drop Factor Problems

1. Infuse 1.5 gram of a medication over 3 hours. The drug is supplied as 1.5 gram/250mL. The drip factor is 15. How many gtt/min will you infuse? (Round to the nearest whole number) $\frac{250 \cdot 15}{180} = 20.83 = 21$ **21 gtt/min**
2. An order has been written to give 1 gram of a medication over 30 minutes. The drug is supplied as 1 gram/50mL. The gtt factor is 60. How many gtt/min will you infuse? $50 \cdot 60 / 30 = 100$ **100 gtt/min**
3. The nurse is to give 500mg IV of a medication over 1 hr. The drug is supplied as 1 gram/250mL. The gtt factor is 15. How many gtt/min will you infuse? (Round to the nearest whole number) $\frac{500}{1000} \cdot 250 = 125 \text{ mL}$ $\frac{125 \cdot 15}{60} = 31.25$ **31 gtt/min**
4. The patient is to receive 400 mg IV of a medication over 1 hour. You receive an IV bag from the pharmacy labeled 400 mg in 100 mL D5W. The IV tubing delivers 12 gtt/mL. How many drops per minute (gtt/min) will the nurse deliver? $\frac{100 \cdot 12}{60} = 20$ **20 gtt/min**

mL/hr Infuse over time

5. The physician writes an order to give 1000mL of intravenous fluid over 8hrs. How many mL/hr will you infuse? $\frac{1000}{8} = 125$ **125 mL/hr**
6. Infuse 1000 mLs of intravenous fluid over 4 hrs. How many mL/hr will you set on the pump? $\frac{1000}{4} = 250$ **250 mL/hr**
7. A physician orders 1000 mg of a medication to be given every 6 hours over 1.5 hours. The medication is delivered with 1000 mg in 250 mL. How many mL/hr will you set the pump? (Round to the nearest whole number) $\frac{250}{1.5} = 166.6 = 167$ **167 mL/hr**

IV Push

8. An order is received for 75mcg IV push of a medication now. The drug is supplied as 100mcg/2mL. How many mL will you give? $\frac{75}{100} \cdot 2 = 1.5$ **1.5 mL**
9. The patient is to receive 5mg of a medication IV push. The drug is supplied as 20mg/5mL. How many mL will you give? (Do not round your final answer) $5 \div 20 \cdot 5 = 1.25$ **1.25 mL**
10. The order is to give 2mg IV push of a medication now. The drug is supplied as 10mg/1mL. How many mL will you give? $\frac{2}{10} \cdot 1 = 0.2$ **0.2 mL**