

## IM 7 Math Module

Complete the required math problems and check your answers.

105-22-75

14. The physician has ordered a medication to start at 2 mcg/kg/min. The patient weighs 165 lbs. The IV bag reads 800 mg in 500 mL D5W. What rate would the nurse set on the infusion pump? (Round to the nearest tenth)

$$\frac{2 \text{ mcg}}{1} = \frac{x}{75} = 150 \text{ mcg} \times 60 \frac{9000 \text{ mcg}}{x} = \frac{800000}{500}$$

5.6

15. The physician has written an order to increase the medication to 4 mcg/kg/min. The IV bag reads 64 mcg/mL. What rate would the nurse set on the IV pump? (Round to the nearest tenth)

$$\frac{290}{x} = \frac{64}{1} = \boxed{3.8 \text{ mL/hr}}$$

16. The patient is on a medication drip infusing at 15 mL/hr. The label reads 50 mcg/mL. The patient weighs 65 kg. How many mcg/min is the patient receiving? (Do not round)

$$\frac{50 \text{ mcg}}{1} = \frac{x}{15 \text{ mL}} = 750 \text{ mcg} \quad \boxed{12.5 \text{ mcg/min}}$$

Heparin/Insulin or mg/hr

17. The physician orders a heparin infusion at 500 units/hr. The IV bag of medication reads 25,000 units in 250 mL D5W. How many mL/hr should be showing on the IV pump?

$$\frac{25000}{250 \text{ mL}} = \frac{500}{5} \quad \boxed{5 \text{ mL/hr}}$$

18. The patient is on a regular insulin drip infusing at 5 units/hr. The bag is labeled 100 units in 250 mL NS. At what rate should the pump be infusing? Round to the nearest whole number.

$$\frac{100 \text{ units}}{250 \text{ mL}} = \frac{5 \text{ units}}{x} \quad \boxed{13}$$

Burns (Parkland Formula) Do not round weights