ATI - DCSMA - Critical Care Medication Test with Solved Mathematical Challenge Questions Made Easy to Remember.

a nurse is preparing to administer nitroprusside 4 mcg/kg/min by continuous IV infusion to a client who weight 57 kg. available is nitroprusside 50 mg in 250 mL dextrose 5% in water, D5W. the nurse should set the IV pump to deliver how many mL/hr? round to the nearest tenth - **SOLVE:** 4 mcg/kg/min

57 kg

50 mg in 250 mL

how many mL/hr?

Exact Answer

4/1000 x 57 x 60 = 13.68 mg/hr

X mL/hr = 13.68 /50 x 250

X = 68.4 mL/hr

a nurse is preparing to administer heparin 15 units/kg/hr by continuous IV infusion for a client who weighs 51 kg. available is 25000 units of heparin in 500 mL 0.9% sodium chloride. the nurse should set the IV

pump to deliver how many mL/hr? round to the nearest tenth - **SOLVE:**

15 units/kg/hr

51 kg

25000 units in 500 mL

how many mL/hr?

Exact Answer

15 x 51 = 765 units / hr

X mL/hr = 765 / 25000 x 500

X = 15.3 mL/hr

a nurse is preparing to administer a one-time dose of gentamicin 120 mg over 2 hr to a client. available is gentamicin 120 mg in 100 mL of 0.9% sodium chloride. the nurse should set the IV pump to deliver how many mL/hr? round to the whole number - **SOLVE:** 120 mg over 2 hr

120 mg in 100 mL.

how many mL/hr?

Exact Answer

120 / 2 = 60 mg/hr

X mL/hr = 60 / 120 x 100

X = 50 mL/hr

a nurse is preparing to administer nitroglycerin 50 mcg/min by continuous IV infusion. available is nitroglycerin 25 mg in 250 mL dextrose 5% in water D5W. the nurse should set the IV pump to deliver how many mL/hr? round to the whole number - **SOLVE:** 50 mcg/min

25 mg in 250 mL

how many mL/hr?

Exact Answer:

50 / 1000 x 60 = 3 mg / hr

X mL/hr = 3 / 25 x 250

X = 30 mL/hr

a nurse is preparing to administer regular insulin 0.1 unit/kg/hr by continuous IV infusion to a client who weighs 60 kg. the amount available is regular insulin 50 units in 50 mL of sodium chloride. the nurse should set the IV pump to deliver how many mL/hr? round to the whole number - **SOLVE:** 0.1 unit/kg/hr

60 kg

50 unit in 50 mL

how many mL/hr?

Exact Answer:

0.1 x 60 = 6 unit/hr

X ml/hr = 6/50 x 50

X = 6 mL/hr

a nurse is preparing to administer potassium chloride 40 mEq to infuse over 4 hr to a client. available is potassium chloride 40 mEq in 100 mL dextrose 5% in 0.45% sodium chloride, D5 1/2NaCl). the nurse should set the infusion pump to deliver how many mL/hr? round to the whole number - **SOLVE:** 40 mEq over 4 hr

40 mEq in 100 mL

how many mL/hr?

Exact Answer:

40/4 = 10 mEq/hr

X ml/hr = 10 / 40 x 100

X = 25 mL/hr

a nurse is preparing to administer heparin 15 units/kg/hr by continuous IV infusion to a client who weighs 72 kg. available is 25000 units of heparin in 500 mL 0.9% sodium chloride. the nurse should set the IV

pump to deliver how many ml/hr? round to the nearest tenth - **SOLVE:**

15 units/kg/hr

72 kg

25000 units in 500 mL

how many ml/hr?

Exact Answer:

15 x 72 = 1080 units/hr

X ml/hr = 1080/25000 x 500

X = 21.6 mL/hr

a nurse is preparing to administer 0.45% sodium chloride 750 mL IV to infuse over 2 hr to a client. the nurse should set the IV pump to deliver how many mL/hr? round to the whole number - **SOLVE:** 750 mL over 2 hr

how many ml/hr?

Exact Answer:

X ml/hr = 750 / 2

X = 375 ml/hr