1. Convert 430 micrograms to grams.

430 mcg = 430/1000 = 0.430 mg = 0.430/1000 = 0.000430 grams

1. Convert 240 milligrams to micrograms.

240 mg = 240 x 1000 = 240000 mcg

1. Convert 675 micrograms to milligrams.

675 mcg = 675/1000 = 0.675 mg

1. Convert 12 grams to milligrams.

12 grams = 12 x 1000 = 12000 mg

1. A patient is prescribed 25mg penicillin. How many 5mg tablets should be given?

25/5 = 5 tablets

1. You need to give 3.5 grams of X. How many 500mg tablets should be given?

3.5 gram = 3500 mg 3500/500 = 35/5 = 7 tablets

1. 1800mg of X is to be given per day in 3 equally divided doses. Capsules are300mg.  How many capsules should be given at each dose?

1800/3 = 600 mg for each dose. 600/300 = 6/3 = 2/1 = 2 capsules for each dose

1. If X is supplied at 40 micrograms per 1mL and the patient is prescribed 100 micrograms, what volume of X should be given?

(100/40) x (1/1) = 100/40 = 10/4 = 5/2 = 2.5 mL

1. Syrup contains X 155mg/5ml.  How many mg of X are there in 25mL?

25/5 = 5, there is 5x as much in 25 mL. 155 x 5 = 775 mg

1. 400mg of X is prescribed.  It is available as 50mg in 5mL.  What volume should be administered?

(400/50) x (5/1) = 2000/50 = 200/5 = 40/1 = 40 mL

1. A patient is prescribed 2mg of X.  If the syrup contains 400 micrograms/mL, what volume should be administered?

2mg = 2000 mcg. (2000/400) x (1/1) = 2000/400 = 20/4 = 5/1 = 5 mL

1. A patient is prescribed 3mg of X for injection.  If the drug is available as 4mg per 1mL, what volume should be administered?

(3/4) x (1/1) = ¾ = 0.75 mL

1. A patient is prescribed 750 microgram of X.  Ward stock contains 0.5mg/1mL.  How much will you administer?

0.5 mg = 500 mcg. (750/500) x (1/1) = 750/500 = 75/50 = 15/10 = 1.5 mL

1. A patient is prescribed X with 1.5 mg/kg.  The patient weighs 79kg.  What dose is required for this patient?

1.5 x 79 = 79 + 39.5 = 118.5 ,g

1. If 7 mL of X contains 0.01ml of Y how much Y would there be in one litre?

7 mL of x = 0.01 mL of Y. 1mL of x = (0.01/7) mL of Y. 1 L of x = (0.01/7) x 1000 mL of Y. (0.01/7) x 1000 = (0.01/7) x (1000/1) = 10/7 = 1.43 mL

1. 100 microgram of X is prescribed.  It is available as 0.6 mg per mL.  What volume should be administered?

0.6 mg = 600 mcg. (100/600) x (1/1) = 100/600 = 1/6 = 0.17mL

1. X is available as 28000 units in 1mL and the patient requires 21000 units.  What volume is required?

(21000/28000) x (1/1) = 21/28 = ¾ = 0.75mL

1. A patient is to receive 800mL of X over 6 hours.  Calculate the rate in mL/hour.

800/6 = 400/3 = 133.33 mL/hour

1. A patient is to receive 1 unit of X over 8 hours and the giving set delivers 15 drops/mL.  If 1 unit contains 500mL, calculate the drip rate.

(15 x 500) / (8 x 60) = 7500/480 = 750/48 = 250/16 = 125/8 = 15.625 = 16 drops/minute

1. 750mL of X is to be given over 9 hours.  Calculate the drip rate if the giving set delivers 15 drops/mL.

(750 x 15) / (9 x 60) = 11250/540 = 1125/54 = 125/6 = 20.83 = 21 drops/minute

1. 1200mL is to be infused over 14 hours. If the giving set delivers 20 drops per mL, calculate the drip rate.

(1200x20) / (14x60) = 24000 / 840 = 2400/84= 400/14= 200/7 = 28.57 = 29 drops/minute

1. A patient is to receive 1000mL of X at a rate of 125mL per hour commencing at 9am with a 1 hour break from 1-2pm.  What time should it finish?

1000/125 = 8 hours for the feed to finish, with 1 break of 1 hour. 9.00 + 8.00 + 1.00 = 18.00 = 6pm