Revision for drug estimation/calculation for nurses

Before you attempt this section revise and discuss:

- The metric system of measurement and converting from one unit to another
- The ways in which the strength of the solution available may be written:

  Remember:
  - 100mg/2ml means 100mg of drug in each 2ml of solution
  - 100mg/ml means 100mg of drug in each 1ml of solution
  - A 10% solution has 10g of drug in each 100ml of solution
  - A 1 : 5 W/V solution has 1g of drug in each 5ml of solution (Wgt/Vol)
  - A 3 : 200 V/V solution has 3 ml of drug in each 200 ml of solution (Vol/Vol)

Exercise  (answers at the end)

1. Calculate how much of a drug you would administer to a client if the dose of pethidine was 50 mg and the vial contains 100 mg/2ml.

2. What volume of phenergon would you give a client for a dose of 7.5 mg when it comes as 2.5 mg/ml?

3. Atropine is available in a strength of 0.6 mg/ml. How many ml would you give a client for a dose of 2.4mg?

4. Calculate how much lasix you would administer to a client if the dose of lasix is 0.1g and the vial contains 20 mg/2ml.

5. A 0.5mg dose of neocytamen is ordered. How many ml would you give a client if it is available in a strength of 250 mcg/ml?

6. What volume of lanoxin syrup would you give a client for a dose of 250 mcg, when it comes as 0.05 mg/ml?

7. Calculate how much ampicillin you would give a client if the dose of ampicillin is 0.5g and the vial contains 250 mg/2ml.

8. What volume of 0.5% (means 0.5 g in 100 ml) flagyl would you give a client if the prescribed dose is 100 mg?

9. A tablet contains 500mg of lasix. The daily dose is 1g. How many tablets would you prescribe?

10. A tablet contains 0.25mg of digoxin. The daily dose is 125mcg. How many tablets would you prescribe?

11. Heparin comes as 1000 units/ml. What volume would you administer for a 600 unit dose?

12. Heparin comes as 25000 units/ml. What volume would you administer for a 20000 unit dose?
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<tr>
<td>1)</td>
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<tr>
<td>8)</td>
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<td>0.8 ml (just under 1 ml)</td>
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