



Aliquots

Application 1

Rx

Digoxin 30 mg

Calcium carbonate qs ad 30 g

M. ft div. Charts # 100

Set the MWQ at 200 mg

Explain the correct procedure that you may follow to fill this prescription.

Application 2

If you have a trituration of morphine with a ratio of 1:7 and you need 25 mg of morphine weighed with 97% accuracy, can you use the provided trituration?

Yes

No

I can use this trituration after further dilution

Calculating Volume Errors

A 100 mL measuring cylinder has an **error** of 1 mL, what is the maximum expected percentage error when you use this cylinder to measure 20 mL and 90 mL?

% error = error x 100

Measured Volume

**The measuring cylinders have constant error magnitude, but the % error varies depending on the measured volume.

Can you think why are you advised in the lab to use the smallest possible cylinder?

Application 3

Rx

Strong Iodine Solution 0.15 mL

Aq. dist. Qs ad 30 mL

The available measuring cylinders are 10, 50 and 100 mL, LMQ =mL. Explain the steps of filling the prescription.

Application 4

You need 10 mg of atropine sulfate. You have 0.4 mg atropine tablets. The tablet total weight = 100 mg.)

Use 5 tablets

Use 20 tablets

Use 10 tablets

Use 25 tablets

I cannot do it this way.

You are working at a compounding pharmacy and you receive the following two prescriptions

Application 5

Rx 202

Pseudoephedrine Hydrochloride 30 mg

Cornstarch qs 300 mg

Fill charts # 3

How can you fill this prescription? (Use accuracy 97%)

Application 6

Rx

Atropine Sulfate 0.025 mg/kg

Lactose

Sucrose aa QSAD 120 mg

Mix et ft molded tablets DTD # 10

The patient's weight = 154 lb

How can you fill this prescription with accuracy = 95%,

Application 7

- a- A balance with SR = 5 mg has MWQ=
- b- Using 25 mL cylinder, what is the LMQ?
- c- If you are weighing 140 mg on a torsion balance with SR = 6 mg, the maximum percentage error will be...
- d- The MWQ =.....for an Rx with required accuracy is 98% and SR = 6 mg,

Application 8

How to solve this problem?

A prescription calls for a desired quantity of 12 mL of 3 % w/v drug solution in total of 40 mL liquid, the smallest measuring cylinder you have is 100 mL, with divisions of 2 mL,. The first division is at 10 mL.