

## Math Testing Policy

Math Testing (Dosage, Solutions, and Rate Calculations) will be performed in each semester of the program. The student must meet each course's requirement as follows:

- 100% in first semester
- 100% in second semester
- 100% in third semester
- 100% in fourth semester.

The student must pass by the third attempt. If the student is not successful by the third attempt, an Instructor-Initiated Drop/Withdrawal Procedure will be instituted and the student will not be able to attend the clinical setting. It is the student's responsibility, per college policy, to complete the Drop Procedure through the Admissions and Records office. All nursing courses in the semester must be dropped.

### Calculating Parenteral Medication Administration Volumes Standards

Resource: Kaplan

Nursing 16, *Calculate with Confidence*, 6<sup>th</sup> ed. 2014

#### Key Concept:

**Answers to medical calculations are written as decimal numbers, as follows:**

When calculating dosages for parenteral medications be sure to review the rounding guidelines for each specific care area.

Generally, volumes less than 1 mL are rounded to the hundredths place.

Volumes greater than 1 mL are rounded to the tenths place.

0.453	Rounded to nearest hundredth:	0.45
0.268	Rounded to nearest hundredth:	0.27
1.75	Rounded to nearest tenth:	1.8
1.73	Rounded to nearest tenth:	1.7
0.95	Rounded to nearest hundredth:	0.95 (unchanged: already calculated to nearest hundredth)

0.5 mL and 1 mL syringes are used for administering intramuscular and subcutaneous medications. Occasionally an injection will exceed 1 mL, in which case a 2 mL syringe would be appropriate. Syringes intended for injections are often graduated in 0.1 mL or even 0.01 mL increments. Always use the smallest syringe that will hold the entire amount of medication in order to enhance accuracy when drawing up the medication. For example, when administering a volume of 0.75 mL choose a 1 mL syringe for a volume of 0.25 mL choose a 0.5 mL syringe.

**Answers to medical calculations written as decimal numbers**

∅ Answer of less than one must be preceded by a **0**.

Correct: 0.5 Incorrect: .5

∅ Avoid trailing zeros. Do not use a **0** before a whole number or at the end of an answer.

Correct: 5 Incorrect: 05

Correct: 1.25 Incorrect: 1.250

**When converting pounds to kilograms, round to the nearest 0.1(tenth)**

Example: 54.54 kg rounds to 54.5 kg

**Intravenous (IV) drip rates, drops and unit amounts**

Round IV drip rates, drops, and units to the nearest **whole number**.

**Medication calculations involving tablets rounded to nearest one half tablet**

Examples: If the answer is 0.4, give one half tablet

If the answer is 1.2 give one table

If the answer is 1.6 give one and one half tablet

If the answer is 1.8 give 2 tablets

*(no more than 10% variation should exist between dosage order and dosage administered)*