

Dosage Calculation Competency

Level 1

Practice Worksheets

By placing name on this exam the tester assumes responsibility for knowing and complying with the General Rules for Dosage Rounding and Additional Notes as published on the Cox College Website.

STUDENT NAME: _____ **DATE:** ____ / ____ / ____

STUDENT I.D. #: _____ **ADVISOR:** _____

A 95% must be achieved on the competency exam to progress in the Nursing Program. Retesting can not occur the same day as the failed exam. Each exam may be repeated once within the testing period unless there are no more published dates available. Testing process must be completed within specified testing dates. Failure to pass competency exam will result in following the remediation process as outlined in the student handbook.

Student will be allowed one hour to complete this competency.

If the student leaves during testing the exam will be collected and graded at that point whether completed or not.

A student photo ID is required to take the Dosage Calculation Competency Exam.

Only simple four function calculators are allowed for testing. Students may not share calculators.

DIRECTIONS:

Place all personal items in designated area.

Silence all cell phones.

Calculate the correct dosage and show your work on the exam.

- **Failure to label answers will result in missing the problem.**
- **Failure to show work will result in missing the problem**

Once exam is complete submit to faculty in room and proceed to designated waiting area to receive notification of score.

THERE ARE **20** QUESTIONS TO THIS TEST.

DO NOT OPEN THIS TEST OR BEGIN UNTIL DIRECTED TO START

COX COLLEGE
Springfield, Missouri

Dosage Calculation Competency
Math Review—Level One

Equivalents:

- 1 kilogram (kg) = 1000 Grams (GM)
- 1 Gram (g) = 1000 milligrams (mg)
- 1 mg = 1000 micrograms (mcg)
- 1 Liter (L) = 1000 milliliters (mL)
- 1 mL = 1 cubic centimeter (cc)
- 30 mL = 1 ounce (oz)
- 65 mg = 1 grain (gr)
- 2.2 pounds (lb) = 1 kilogram (KG)

Round the following to the nearest hundredth.

- 1. 68.1883 = _____
- 2. 0.012 = _____
- 3. 3.655 = _____
- 4. 2.1709 = _____
- 5. 4.209 = _____
- 6. 0.0006 = _____
- 7. 3.2 = _____
- 8. 0.096 = _____
- 9. 0.995 = _____
- 10. 19.999 = _____

24 hour clock conversion:

- 1. 1815 on the 24-hour clock is the same as _____ in the 12 hour time.
- 2. On the 24-hour clock 3:05 pm is the same as _____.

COX COLLEGE
Springfield, Missouri

**Dosage Calculation Competency
Practice Test—Level One**

1. 300 mg = _____ GM

2. 3825 g = _____ lb.

3. 255 mg = _____ GM

4. 650 mg = _____ gr

5. 140 lb = _____ KG

6. 3 L = _____ mL

7. 1400 g = _____ lbs

8. 10 gr = _____ mcg

9. 4 oz = _____ mL

10. 240 mg = _____ gr.

11. The physician has ordered 100 mg Demerol po now. Read the label and determine how many tablets to administer. _____



12. Synthroid 0.1 mg p.o. daily. You have Synthroid in 50 mcg tablets. Give _____

13. Tetracycline syrup 250 mg p.o. q.i.d. You have tetracycline syrup 2000 mg in 60 mL.

How many mL's will you give? _____

14. The physician orders: Potassium Chloride 10 mEq p.o now. Read the label and determine how much to give.



15. Polymox suspension 150 mg tid. You have Polymox oral suspension 125 mg/5 mL in an 80 mL bottle. Give _____

16. Sodium Salicylate gr 2 rectally every 4 hours. You have 130 mg suppository. Give _____

17. Demerol 40 mg IM q 3 hrs. for pain. The drug is available in an ampule containing 50 mg/mL. Give _____

18. A newborn infant weights 3200 g. The mother wants to know the baby's weight in pounds. Answer _____

19. Bronkodyl elixir 0.05 g po q 6 hrs must be given using the solution containing 80 mg per 15 mL. Give _____

ANSWER SHEET – LEVEL I PRACTICE TEST

Rounding to the hundredth.

1. 68.19
2. 0.01
3. 3.66
4. 2.17
5. 4.21
6. 0
7. 3.2
8. 0.1
9. 1
10. 20

24 hour clock Conversion

1. 6:15 PM
2. 1505

Sample Exam

1. 0.3
2. 8.42
3. 0.26
4. 10
5. 63.64
6. 3000
7. 3.08
8. 650,000
9. 120
10. 3.69
11. 2 tablets
12. 2 tablets
13. 7.5 mL
14. 7.5 mL
15. 6 mL
16. 1 suppository
17. 0.8 mL
18. 7.04 lbs
19. 9.4 mL

Dosage Comp Level I Practice worksheet
Keys worked in Dimensional Analysis

- #1. **0.3 GM**
- | | | | | |
|--------------|-------------------------------|---------------------|-----------------|---------------|
| Wanted
GM | Conversion
1 GM
1000 mg | Have
300 mg
1 | 1x300
1000x1 | Answer
0.3 |
|--------------|-------------------------------|---------------------|-----------------|---------------|
- #2. **8.42 lbs**
- | | | | | | |
|------------------|-----------------------------|------------------------------|-----------------------|------------------------|----------------|
| Wanted
pounds | Conversion
2.2 #
1 KG | Conversion
1 KG
1000 g | weight
3825 g
1 | 2.2x1x3825
1x1000x1 | Answer
8.42 |
|------------------|-----------------------------|------------------------------|-----------------------|------------------------|----------------|
- #3. **0.26 GM**
- | | | | | |
|--------|-------------------------------|---------------------|-----------------|----------------|
| Wanted | Conversion
1 GM
1000 mg | Have
255 mg
1 | 1x255
1000x1 | Answer
0.26 |
|--------|-------------------------------|---------------------|-----------------|----------------|
- #4. **10 gr**
- | | | | | |
|--------------|-----------------------------|---------------------|---------------|-----------------|
| Wanted
gr | Conversion
1 gr
65 mg | Have
650 mg
1 | 1x650
65x1 | Answer
10 gr |
|--------------|-----------------------------|---------------------|---------------|-----------------|
- #5. **63.64 KG**
- | | | | | |
|--------------|-----------------------------|--------------------|----------------|-----------------|
| Wanted
KG | Conversion
1 KG
2.2 # | Have
140 #
1 | 1x140
2.2x1 | Answer
63.64 |
|--------------|-----------------------------|--------------------|----------------|-----------------|
- #6. **3000 mL**
- | | | | | |
|--------------|------------------------------|------------------|---------------|----------------|
| Wanted
mL | Conversion
1000 mL
1 L | Have
3 L
1 | 1000x3
1x1 | Answer
3000 |
|--------------|------------------------------|------------------|---------------|----------------|
- #7. **3.08 pounds**
- | | | | | | |
|---------------|-----------------------------|-----------------------------|---------------------|------------------------|----------------|
| Wanted
lbs | Conversion
2.2 #
1 KG | Conversion
1 KG
1000g | Have
1400 g
1 | 2.2x1x1400
1x1000x1 | Answer
3.08 |
|---------------|-----------------------------|-----------------------------|---------------------|------------------------|----------------|
- #8. **650,000 mcg**
- | | | | | | |
|---------------|--------------------------------|-----------------------------|--------------------|---------------------|-------------------|
| Wanted
mcg | Conversion
1000 mcg
1 mg | Conversion
65 mg
1 gr | Have
10 gr
1 | 1000x65x10
1x1x1 | Answer
650,000 |
|---------------|--------------------------------|-----------------------------|--------------------|---------------------|-------------------|
- #9. **120 mL**
- | | | | | |
|--------------|-----------------------------|-------------------|-------------|---------------|
| Wanted
mL | Conversion
30 mL
1 oz | Have
4 oz
1 | 30x4
1x1 | Answer
120 |
|--------------|-----------------------------|-------------------|-------------|---------------|

#10	3.69 gr					
	Wanted gr	Conversion 1 gr 65 mg	Have 240 mg 1	1x240 65x1	Answer 3.69 gr	
#11	2 tablets					
	Wanted tablets	Dose on hand 1 tablet 50 mg	Order 100 mg 1	1x100 50x1	Answer 2	
#12.	2 tablets					
	Wanted tablets	Dose on hand 1 tablet 50 mcg	Conversion 1000 mcg 1 mg	Order 0.1 mg 1	1x1000x0.1 50x1x1	Answer 2
#13.	7.5 mL					
	Wanted mL	Have on hand 60 mL 2000 mg	Order 250 mg 1	60x250 2000x1	Answer 7.5	
#14.	7.5 mL					
	Wanted mL	Have on hand 15 mL 20 mEq	Order 10 mEq 1	15x10 20x1	Answer 7.5	
#15.	6 mL					
	Wanted mL	Have on hand 5 mL 125 mg	Order 150 mg 1	5x150 125x1	Answer 6	
#16	1 suppository					
	Wanted suppository	Dose on hand 1 supp 130 mg	Conversion 65 mg 1 gr	Order 2 gr 1	1x65x2 130x1x1	Answer 1
#17.	0.8 mL					
	Wanted mL	Have on hand 1 mL 50 mg	Order 40 mg 1	1x40 50x1	Answer 0.8	
#18.	7.04 lbs					
	Wanted lbs	Conversion 2.2 lbs 1 KG	Conversion 1 KG 1000g	Have 3200 gm 1	2.2x1x3200 1x1000x1	Answer 7.04
#19.	9.4 mL					
	Wanted mL	Have on hand 15 mL 80 mg	Conversion 1000 mg 1 g	Order 0.05 g 1	15x1000x0.05 80x1x1	Answer 9.375