

Do You Have What It Takes to Be a UPMC Nurse?



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Do I Have What it Takes?

Accelerated Diploma Nursing Program Readiness Self-Assessment

Your decision to apply for this rigorous and intensive program of study deserves careful consideration. The following information will clarify expectations and alert you to plans you will need to establish to support your success. Please use this information to assess whether this is the right program for you.

1. The program is rigorous. You must be self-directed, disciplined, focused, and accountable for your own learning.
2. The program is intensive. Your time management, organizational skills, and study skills must be consistently efficient and effective.
3. The program is highly structured. You must demonstrate initiative, reliably access information, and adhere to policies.
4. The class and clinical/simulation schedules are demanding, variable, and require a very high degree of flexibility. Schedules may vary from semester to semester and require the ability to adapt with little notice.
5. The fast-paced and demanding schedules will limit your employment ability during the program. Financial planning, including addressing financial aid or personal loan needs prior to beginning the program, is necessary. An appointment with the Financial Aid Representative is highly encouraged. Representatives are prepared to answer your questions during the program.
6. Clinical experiences will be scheduled throughout the UPMC health system and surrounding health care facilities. You will need to plan for reliable transportation and commuting time.
7. The ability to use computers for online learning, documentation, accessing information, and communicating is imperative. You must demonstrate basic computer skills and willingness to use information systems including the CANVAS learning management system. You must own or rent an electronic device.
8. The course work is interactive. UPMC Schools of Nursing use low- and high-fidelity simulation as an integral part of clinical education. Preparation for class and clinical settings is necessary for applying the course work and demonstrating competencies.
9. You will engage in individual and collaborative group work in which you will demonstrate your knowledge, skills, and professional attitude.
10. The ability to quickly synthesize readings, class, and clinical/simulation is necessary. You must also demonstrate clinical reasoning. This program has opportunity for review and remediation. You are encouraged to use this resource.
11. You are expected to have strong writing and math skills. These skills are necessary for accurate communication, collaboration, and safe care. A solid science foundation is highly recommended.
12. You must meet standards for Admission, Progression, and Graduation as outlined in the UPMC Schools of Nursing Student Handbook.
13. You will be held to the highest standard of professional behaviors, including dignity and respect for all persons as well as integrity and honesty as representatives of the UPMC Schools of Nursing and the nursing profession.

Source: Higher Learning Commission (hlcommission.org)

Nurses and Math

Nurses must be able to do mathematics to ensure that they medicate the patients correctly.

The dosage calculation worksheet is only for practice. You are not expected to be able to solve all of these problems. This is just to prepare you for what you will be expected to master.

Dosage Calculation

Basic medication dose conversion and calculation skills are essential for providing good nursing care. Nurses are responsible for administering the correct amount of medication by calculating the precise amount of medication to give. Nurses can use three different methods for dosage calculation: ratio and proportion, formula (desired over have), and dimensional analysis.

Types of calculations:

- Solid oral medication
- Liquid oral medication
- Injectable medication
- Correct doses by weight
- IV infusions rates

Standard conversion factors:

- 1 mg = 1,000 mcg
- 1 g = 1,000 mg
- 1 kg = 1,000 g
- 1 oz = 30 mL
- 1 L = 1,000 mL
- 1 tsp = 5 mL
- 1 tbsp = 3 tsp
- 1 kg = 2.2 lb
- 1 gr = 60 mg

Set up the equation and solve for X.

1. $X = \text{Desired} \times \text{Quantity} / \text{Have}$
2. $X \text{ capsule(s)} = 200 \text{ mg} \times 1 \text{ cap} / 1,000 \text{ mg}$
3. $X \text{ capsule(s)} = 2 \text{ capsules}$
4. Round, if necessary

Dosage Calculation Worksheet

1. Round the following values to the nearest tenth.

a. $0.37 =$ _____

b. $0.42 =$ _____

c. $1.66 =$ _____

d. $2.91 =$ _____

2. Which of the following values is incorrectly written according to the math rules learned?

a. 0.5 mg

b. 12.0 mL

c. 1,000 L

d. 0.62 mg

3. If there is 150 mg in two capsules of a medication, how many milligrams are in 10 capsules?

4. If $1 \text{ kg} = 2.2 \text{ lb}$, how many kilograms are in 61.6 lb?

5. The prescriber orders 0.25 mg of a medication. The medication is available in 0.125 mg tablets. How many tablets will you administer for the ordered dosage?

6. Perform the following conversions using the correct conversions factors.

a. $300 \text{ mg} =$ _____ g

e. $51 \text{ mL} =$ _____ L

i. $66 \text{ lb} =$ _____ kg

b. $0.7 \text{ L} =$ _____ mL

f. $42 \text{ lb} =$ _____ kg

j. $7 \text{ oz} =$ _____ mL

c. $180 \text{ mcg} =$ _____ mg

g. $3.5 \text{ oz} =$ _____ mL

k. $72 \text{ kg} =$ _____ lb

d. $1.6 \text{ mg} =$ _____ mcg

h. $60 \text{ lb} =$ _____ kg

7. A client consumed the following during your shift:

10 oz Coffee

8 oz Cranberry juice

6 oz Chicken broth

Calculate the total intake in mL _____

8. A client consumed the following during your shift:

8 oz Milk

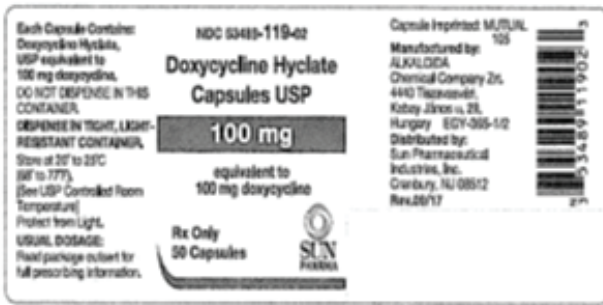
6 oz Orange juice

4 oz Water

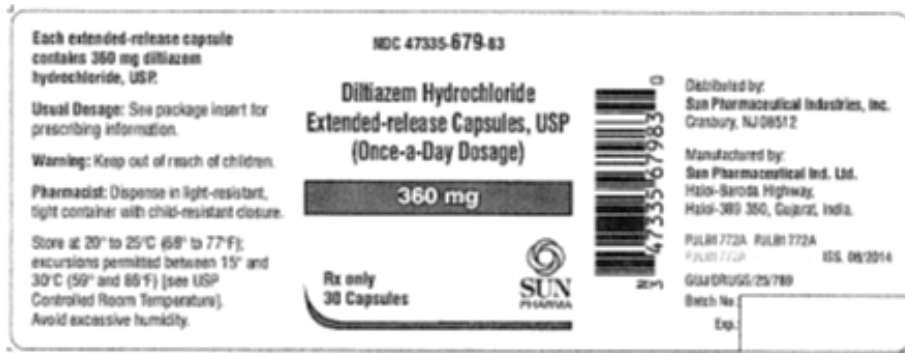
Calculate the patient's intake in mL _____

9. A client weighed 95 kg on the initial patient visit to the clinic. When the client reported for the subsequent visit the client reported losing 11 lb. What is the client's current weight in kg?

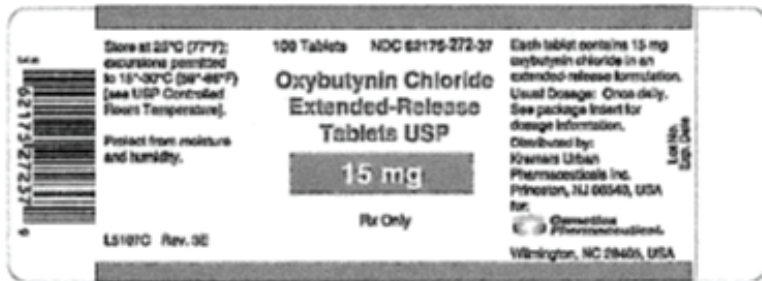
10. How many milligrams are in one capsule of Doxycycline as shown on the medications label below?



11. There is 360 mg in _____ capsule(s) of Diltiazem Hydrochloride as shown in the medication label below.



12. How many milligrams are in one tablet of the Oxybutynin Chloride extended release medication as shown in the medication label below?



13. The provider orders a patient to receive 250 mg of Amoxil. Using the medication label below, how many mL will you administer to the patient to achieve the ordered dose?



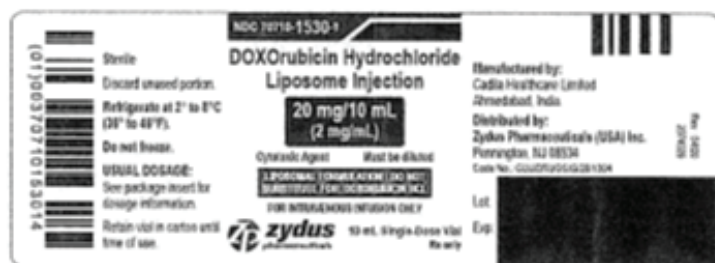
14. A physician has ordered for a patient to take 60 mg of Zocor. Using the medication label below, how many tablets of Zocor will the patient take to achieve the desired dose?



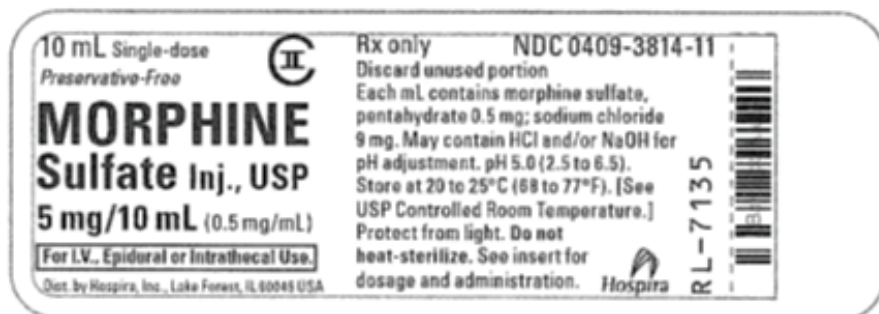
15. A physician orders a patient to receive 75 mg Metoprolol Tartrate. Using the medication label below, determine how many tablets the patient should take to receive the appropriate dosage.



16. A provider orders for a patient to receive 6 mg of the medication below. Use the medication label to determine how many milliliters should be administered to achieve the prescribed dose.



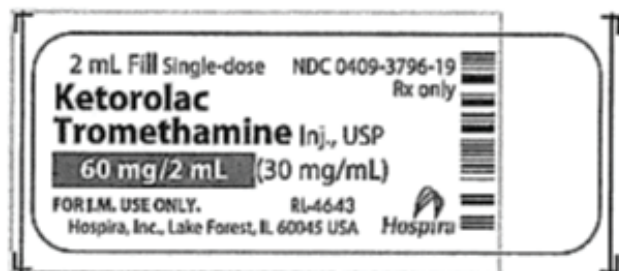
17. How many milliliters should you administer to provide the patient with 1 mg of Morphine? Use the information found on the medication label below to determine the proper dose.



18. A patient is to take 150 mg of Lithium Carbonate daily. Use the medication label below to determine how many tablets a patient should take to achieve the correct dose.



19. A provider prescribes for a patient to receive a 90 mg dose of Ketorolac via slow IV push. How many milliliters will you administer to achieve the proper dose? Use the medication label below to determine your proper dose.



20. A patient is prescribed a 300 mg dose of Succinylcholine. How many mL should you administer to achieve the correct dosage? Use the medication label below to determine your answer.



Nursing Academic Word List

abdomen	anesthesia	campaign	compress	covariate
absorb	angina	cancer	comprise	create
abstract	annual	cannula	compute	criteria
abuse	antibiotic	capable	concentrate	cue
academy	anticipate	capacity	concept	culture
access	apparent	capture	conclude	cycle
accurate	appraise	caregiver	concurrent	data
achieve	appreciate	category	conduct	decade
acid	approach	catheter	confidential	decline
acknowledge	appropriate	caucasian	confirm	deficit
acquire	approximate	cell	conflict	define
activate	area	centimeter	confound	definite
acute	artery	certificate	congruence	demographic
adapt	ascertain	cervix	consecutive	demonstrate
addict	aspect	challenge	consent	dense
adequate	aspirate	chart	consequent	depress
adhere	assess	checklist	considerable	derive
adjust	assign	chemotherapy	consist	design
administer	assist	chronic	constant	designate
administrate	assume	circumstance	constipation	despite
admission	assure	cite	constitute	detect
adolescent	attach	clarify	construct	deteriorate
adult	attenuate	client	consult	development
adverse	attitude	clinic	consume	deviate
advocate	attribute	cluster	contact	diabetes
affect	audit	cognition	contaminate	diagnose
aggression	auditory	cohort	context	diary
aid	author	collaborate	contrast	diet
alcohol	autonomy	colleague	contribute	digit
alert	available	commence	convene	dimension
alleviate	aware	comment	coordinate	diminish
allocate	bacteria	communicate	cope	discharge
alter	barrier	community	core	disclose
alternative	baseline	compensate	coronary	discrepancy
ambulate	benefit	competence	correlate	discriminate
analgesia	bias	complex	correspond	disorder
analogue	breast-feed	compliance	counsel	display
analyze	brief	component	county	disrupt
anatomy	burden	comprehensive	couple	distinct

distress	ethnic	globe	instance	marital
distribute	evaluate	glucose	institute	maximize
diverse	evident	goal	instruct	mechanism
document	evolve	grade	intake	mediate
domain	exceed	graduate	integrate	medical
donate	exclude	guideline	intense	medication
dose	exert	headache	interact	membrane
drain	exhaust	hence	intermittent	mental
drama	exhibit	heterogeneous	internal	metabolic
drug	expand	highlight	interpret	method
duration	expert	hip	interval	midwife
dynamic	explicit	hormone	intervene	milligram
economy	expose	hospice	interview	milliliter
efficacy	external	household	intravenous	millimeter
electron	extract	hypertension	invasive	minimal
element	extubate	hypothesis	inventory	minimize
elevate	facet	identify	investigate	minimum
elicit	facilitate	illustrate	irritate	minor
eligible	factor	image	isolate	mobile
eliminate	faculty	immune	issue	modify
emerge	fatigue	impact	item	modulate
emergency	feasible	impair	job	monitor
emotion	feature	implement	journal	mood
emphasis	feedback	implicate	kilogram	morbid
empower	figure	incidence	label	mortality
enable	final	income	laboratory	motive
encounter	finance	incorporate	lateral	muscle
endure	flexible	index	lesion	nausea
energy	fluid	indicate	lifestyle	negate
engage	focus	individual	linear	nerve
enhance	follow-up	induce	link	network
enroll	format	infant	literate	neurology
ensure	formula	inflamm	locate	nevertheless
environment	foundation	inflect	logistic	norm
epidemic	fracture	infuse	longitudinal	normal
episode	framework	inhibit	magnitude	nutrition
equate	frustrate	initial	maintain	obese
equip	function	initiate	major	objective
equivalent	fund	injection	malignant	obstruct
error	furthermore	injure	mandate	obtain
establish	gender	input	manipulate	obvious
estimate	generate	insert	manual	occupy
ethic	geography	insight	margin	occur

odd	positive	radiate	routine	strategy
oncology	posture	random	rural	strengths
ongoing	potential	range	scan	stress
onset	practitioner	ratio	schedule	structure
optimal	precede	rationale	scope	subjective
option	precise	recall	score	subscale
oral	predict	receptor	section	subsequent
orient	predominant	recipient	secure	suction
outcome	pregnant	recover	sedation	sufficient
outpatient	preliminary	recruit	seek	sum
overall	premature	referral	select	summary
oxygen	prescribe	refine	self-esteem	supervise
panel	prevalent	regimen	senior	supplement
parameter	previous	region	sensation	suppress
participate	primary	register	sequence	surgery
partner	principal	regress	series	survey
passive	principle	regulate	serum	survive
pathology	prior	rehabilitation	session	sustain
pathways	priority	reinforce	setting	symptom
peak	probe	reject	sex	syndrome
pediatric	proceed	relax	shift	system
peer	process	release	significant	tape
perceive	professional	relevant	similar	target
percent	profile	rely	site	task
period	prognosis	remove	software	team
peripheral	progression	renal	somewhat	technical
persist	project	replicate	source	technique
personnel	prolong	require	specialize	technology
perspective	proportion	research	specific	temporal
pharmacology	prospect	reside	specify	tense
phase	prostate	resolve	spectrum	terminate
phenomenon	protein	resource	spinal	theme
philosophy	protocol	respiratory	spontaneous	theory
physical	province	respond	spouse	therapy
physician	psychology	restrict	stable	thereby
physiology	publication	retain	staff	thorax
pill	publish	retrospect	standardize	threshold
pilot	pulmonary	reveal	statistic	timing
placebo	pulse	reverse	status	tissue
placement	qualitative	revise	sterile	tolerate
plus	quantitative	rigor	stigma	topic
policy	questionnaire	role	stimulate	toxic
portion	quit	rotate	strain	tract

tradition	trigger	urban	vein	vital
transcribe	tumor	urgent	ventilate	voluntary
transit	ulcer	urine	verbal	vomit
transmit	ultimate	utilize	verify	vulnerable
transplant	ultrasound	vaccine	version	ward
transport	undergo	valid	via	well-being
trauma	underlie	vary	victim	whereas
treat	undertake	vascular	visible	withdraw
trend	unique	vehicle	visual	workload

Comprehension Exercise

Pablo Picasso was a Spanish artist who worked in many mediums. He is the best-known artist of the 20th century. He is best known for co-founding the Cubist Movement. The Cubist Movement showed that art did not have to be an imitation of life and that beauty could be found in unfamiliar images. This opened the door for every subsequent artist to express themselves in the way that they wanted; not in a way that was prescribed.

He is also known for the distinct periods of his work. These include the Blue Period, the Cubist Period, and the African-Influenced Period. In the Blue Period, Picasso's paintings were predominantly blue and blue green in color with small highlights of other colors. The most famous painting of the Blue Period is called *The Old Guitarist*. These paintings have life-like figures that are easily recognizable. The figures in Cubist Period paintings are portrayed abstractly with emphasis on geometric shapes. The viewer must study the painting more to determine what is being portrayed. The most famous painting of this period is called *Guernica*. The African-Influenced Period drew inspiration from African tribal art and culture. The most famous painting of this period is called *Les Femmes d'Alger*.

Picasso continued to make art until his death in 1973. His original art work has sold for over \$100,000,000.00. Most artists who have come after him benefited from his contributions to art.

1. What is Pablo Picasso best known for?
 - a. He is best known for having several distinct styles in his work.
 - b. He is best known for making Spanish painters better known.
 - c. He is best known for co-founding the Cubist Movement.
 - d. He is best known for working in several mediums.
2. Why was the Cubist Movement important?
 - a. It contained strangely composed images
 - b. It was different than the art that was popular.
 - c. It made people want to look at art in museums.
 - d. It promoted personal expression over established ideas.
3. Picasso also had a Rose Period. What do you think those paintings looked like?
4. Why do you think Picasso's work has sold for so much money?

Comprehension Exercise

Ignaz Semmelweis was a Hungarian physician in the early to mid-1800s. Semmelweis discovered that thorough hand hygiene reduced the risk of maternal death by puerperal fever. In 1847 Dr. Semmelweis performed a study that proved that hand washing with a disinfectant solution prior to patient contact saved lives. He published his discovery and assumed that other physicians would embrace it. His findings contradicted the scientific and medical opinions of the time, however, because the existence of germs was unknown. The prevalent thought at the time was that diseases came from bad air. Dr. Semmelweis could not fully explain why hand washing was effective, but he knew it prevented mothers from dying. Dr. Semmelweis continued to insist that hand washing was important but nobody listened. Other physicians felt insulted that they were being asked to wash their hands. In 1865 Dr. Semmelweis died in a mental institution of an infected wound on his hand.

A few years after Semmelweis died, Louis Pasteur confirmed germ theory. Germ theory states that the presence of microorganisms such as bacteria and viruses cause disease states. Germ theory is now widely accepted. Hand washing with a disinfectant solution kills microorganisms that are found on the hands. Hand washing between patients also decreases the spread of germs from one patient to the next and prevents cross-contamination.

Hand washing is necessary for health care and other professions. Dr. Semmelweis insisted that his theory was correct despite opposition from the establishment. His tenacity has positively impacted subsequent generations.

1. In what year did Dr. Semmelweis perform his hand washing study?
 - a. 1874
 - b. 1902
 - c. 1847
 - d. 1865
2. What industries besides health care benefit from hand washing?
3. How would the world be different without the confirmation of germ theory?

Medical Terminology Tips

- **FREE ONLINE MEDICAL TERMINOLOGY COURSE**
- Go to: <https://www.dmu.edu>
- Type in the search box: medical terminology course
- Please register for the free course.

Military Time

To avoid confusion, we use military time when we chart.

Military time is written as four digits, with no colon.

E.g., 11:00 a.m. = 1100

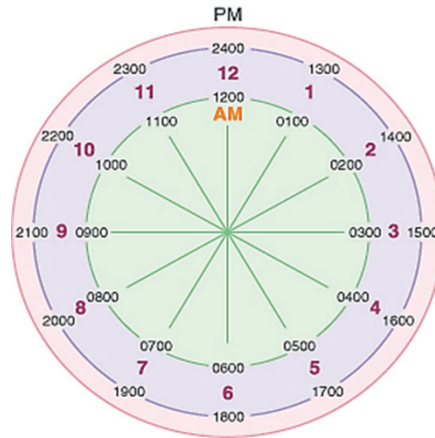
There is no need for “AM” or “PM”

For the afternoon hours, add 12 to get military time.

E.g., 2:00 p.m. = 1400

(2:00 + 12 = 1400)

This is read as “fourteen hundred hours.”



ESL Resources in Harrisburg, Pittsburgh, New Castle, Erie, Washington, and Altoona Areas

If English is a second language for you, there are a wide variety of resources to help improve your English language skills.

Harrisburg Area Resources:

Catholic Charities

Catholic Charities provides ESL classes to immigrants and refugees throughout the Capital Region. Their ESL program offers 15 classes per year at different sites in the community. Typical courses have 10 to 20 students and range from beginner English to advanced classes in grammar and conversation.

Courses include:

- Workplace English Skills
- ESL Language Computer Labs
- United States Civics/Citizenship
- Low Literacy Tutoring Programs

<http://www.cchbg.org/get-help/immigration-refugee-services/english-second-language/>

Trinity Presbyterian Church

Currently, they are not accepting new students to our ESL classes. In-person registration starting in the fall will take place on Wednesday, September 13, at 6:30 p.m.

If you have any questions, send an email to ESL@trinityhbg.com.

English as Second Language (ESL) classes are Wednesday nights from 6:30 to 7:45 p.m. Registration for English classes is now closed. If you have questions, please contact Holly Lankford, ESL Coordinator, at esl@trinityhbg.com.

All ESL Classes are Free!

We offer the following levels:

- Levels Pre 1 and 1: For those who speak little or no English.
- Levels 2 and 3: For those who speak some English and desire to increase their vocabulary and pronunciation.
- Advanced Conversation Class: For those who want to improve their pronunciation and accent and to feel more comfortable conversing at work, at school, and in the community.

All of our teachers are unpaid volunteers who want to help each student learn to speak better English.

For those students with children, we do offer nursery for newborns to one year old; Kids Club ministry is open for children ages 2 through 5th grade; Middle School Youth Group for those in 6th to 8th grades.

If you have questions or interest in attending the English classes, please contact the church office by calling 717-545-4271 or email ESL@trinityhbg.com.

Harrisburg Area Community College (HACC)

HACC's English as a Second Language (ESL) programs provide comprehensive training for students to improve their English skills, regardless of their end goal. Students will benefit from their programs by developing their reading, writing, speaking, and listening skills and increasing their confidence. They offer two types of programs:

- ESL for Academic Purposes, which focuses on further academic study at the college level.
- ESL for Community, College, and Career, which focuses on work, community, and everyday life.

Which is the right English as a Second Language (ESL) program for me?

	ESL for Community, College, and Career	ESL for Academic Purposes
What type of program is this?	A noncredit training program Focuses on: • Learning English for work, community, and everyday life • Communicating better at work • Conversing more confidently in meetings and appointments • Exploring college and career options to determine future goals	A credit program for academic purposes that can lead to an associate degree Focuses on: • Learning English for academic study at the college level • Studying at the college level to earn a credential • Transferring to other colleges
How long is the program?	Each level includes a 10-week class with 50 hours of instruction. Classes are offered either two mornings or two evenings per week. Levels: • Beginner • Intermediate • Advanced	Each level is a 14-week course with three to four hours of instruction each week. Classes are offered during the day and in the evening. Levels: • Reading and Writing 1 and 2 • Speaking and Listening 1 and 2 • Grammar 1 and 2 • Academic English Bridge Course

What is the cost?	The cost is \$350 plus \$40 for the textbook for each level. Scholarships are available to those who qualify.	Tuition is charged per academic credit and varies based on citizenship, as well as Pennsylvania and school district residency. Financial aid and scholarships are available to those who qualify.
How do I get more help deciding?	Interested students can attend a free information session on the first Friday of the month at HACC Midtown (1523 North Fourth St., Harrisburg, PA 17112) or via Zoom: https://hacc.zoom.us/j/7842282235. For additional information, please email eslinfo@hacc.edu or call 717-780-2449.	Please email start@hacc.edu.

English as a Second Language (ESL)

<https://www.hacc.edu/ProgramsandCourses/Programs/English-as-a-Second-Language.cfm>

Temple University at Harrisburg

Whether you are a beginning, intermediate, or advanced English speaker, the IELP has courses that fit your needs.

- Learn from experienced instructors with advanced degrees
- Improve your English skills with students from around the globe
- Learn about the U.S. and American culture
- Work though to IELP level Advanced 2 and apply for a Temple University undergraduate degree
- Join fun social events to improve your English in a relaxed environment

Part-time study is right for you if:

- You only want to take one or two classes
- You don't need an F-1 visa
- **Click the link for more information on our TCalc Online English Classes.**
<https://ielp.temple.edu/programs/tcalc-online-english-classes>

Full-time study is right for you if:

- You want to improve your English language skills quickly
- You plan to apply to Temple University
- You need an F-1 visa
- **Click the link for more information about our Enrichment and Core Classes.**
<https://ielp.temple.edu/programs/intensive-english-language-program/intensive-english-language-program-0>

IELP Eligibility Details:

- F-1 visa students must study full-time.
- Students on a B1/B2 visa or other visa type can only study part-time.

<https://ielp.temple.edu/programs/intensive-english-language-program>

Pittsburgh Area Resources:

CCAC offers classes: Grammar for ESL | Community College of Allegheny County

<https://www.ed2go.com/ccac/online-courses/esl-grammar/#:~:text=It%20is%20designed%20to%20prepare%20you%20for%20regular,that%20you%20may%20be%20taking%20or%20will%20take.>

Greater Pittsburgh Literacy Council: Programs | GED, Reading, ESL, Math, Work Skills | Literacy Pittsburgh

<https://www.literacypittsburgh.org/programs/>

University of Pittsburgh: English as a Second Language (ESL) Programs of Study | English Language Institute | University of Pittsburgh

<https://www.eli.pitt.edu/programs>

Duolingo: Duolingo - The world's best way to learn a language

<https://www.duolingo.com/>

Goodwill SWPA - Allegheny County Residents: Goodwill SWPA - ESL

<https://www.goodwillswpa.org/life-changing-services/education-and-training/esl-classes/>

Free Online Resource through Pitt: Clinical Terminology for International and U.S. Students | Coursera

<https://www.coursera.org/learn/clinical-terminology>

Carnegie Library of Pittsburgh: ESL Materials and Resources - Carnegie Library of Pittsburgh

<https://www.carnegielibrary.org/staff-picks/esl-materials-and-resources/>

Mount Lebanon Library: English as a Second Language | Mt. Lebanon Public Library, PA

<https://mtlebanonlibrary.org/225/English-as-a-Second-Language>

(resources outside of the Pittsburgh area)

Pennsylvania State ELL Resources: Pennsylvania: ELL Resources | Colorín Colorado

<https://www.colorincolorado.org/pennsylvania-ell-resources>

English Center in Youngstown, Ohio free 1-330-743-5767

<https://www.englishcenteryoungstown.com/>

Lifelong Learning Center (Lawrence County Learning Center) free 724-654-1500

<https://www.learningchoicesinfo.org/>

New Castle Area Resources:

The Lawrence County Learning Center provides support and education training for residents (think GED and similar training). **Their website can be found here:**

<https://www.lawrencecountylearning.com/individuals/>

The Lawrence County Learning Center is one of several state-funded CEC programs — Community Education Councils. **The CEC work in many communities throughout the state doing similar work:**

<https://www.education.pa.gov/Postsecondary-Adult/CollegeCareer/Pages/Community-Education-Council.aspx>

Some organizations in Pittsburgh support immigrant populations:

<https://www.literacypittsburgh.org/free-english-classes/>

<https://isacpittsburgh.org/#services>

Finally, the local Intermediate Units have info about ESL:

<https://www.aiu3.net/>

Erie Area Resources:

IU5 Building

English as a Second Language | Community Services

<https://www.iu5.org/community-services/english-as-a-second-language>

Erie Neighborhood House

The workplace and in the community.

ESL/ABE - Erie Neighborhood House

<https://eriehouse.org/programs/esl-abe/>

MCRC

Multicultural Community Resource Center | Erie Community Foundation

<https://www.eriecommunityfoundation.org/donors/give-today/give-to-a-nonprofit/multicultural-community-resource-center>

Washington Area Resources:

Literacy Council of Southwestern PA: Literacy Council of Southwestern PA

351 Montgomery Ave, Washington, PA 15301 | Phone: (724) 228-6188

<http://www.lcswpa.org/>

Intermediate Unit 1: Adult Basic & ESL Programs | Intermediate Unit 1

1 Intermediate Unit Dr 1, Coal Center, PA 15423 | Phone: (724) 938-3241

Provides English as a Second Language (ESL) instruction for adults across Fayette, Greene, and Washington counties.

<https://www.iu1.org/>

National Literacy Directory: Intermediate Unit 1 Adult Programs

Offers a variety of adult education and ESL programs throughout the region.

<https://www.nld.org/>

University of Pennsylvania (Penn GSE): Practical English for Daily Living (PEDAL)

Free online English courses for adult learners; accessible anywhere with an internet connection.

<https://www.gse.upenn.edu/>

Altoona Area Resources:

AASD Adult Education

<https://www.aasdcad.com/apps/pages/adult-ed/>

Classes are held at:

ArtsAltoona | 2212 6th Avenue, Second Floor, Altoona, PA 16602

814-329-0261 or 814-329-0253

adulted@altoonasd.com

ALTOONA ECC — Altoona English & Culture Club

<https://www.altoonaenglishclub.com/>

Altoona C&MA Church

3220 Pleasant Valley Blvd., Altoona, PA 16602

Mondays, 6 to 8 p.m. Classes are held from September to May.

altoonaecc@gmail.com

Answers

Dosage Calculation Worksheet Answer Sheet

1. (a) 0.4
(b) 0.4
(c) 1.7
(d) 2.9
2. (c) – has a trailing zero
3. 150 mg: 2 capsules = x mg: 10 capsules
 $2 \text{ X} / 2 = 1500 / 2$
 $\text{X} = 750 \text{ mg}$
4. 1 kg: 2.2 lb = X kg: 61.6 lb
 $2.2 \text{ X} / 2.2 = 61.6 / 2.2$
 $\text{X} = 28 \text{ kg}$
5. 0.125 mg: 1 tablet = 0.25 mg: X tablet
 $0.125 \text{ X} / 0.125 = 0.25 / 0.125$
 $\text{X} = 2 \text{ tablets}$
6. (a) 300 mg = _____ g → conversion factor: 1000 mg = 1 g
1000 mg: 1 g = 300 mg: X g
 $300 / 1000 = 1000 \text{ X} / 1000$
 $\text{X} = 0.3 \text{ g}$

(b) 0.7 L = _____ mL → conversion factor: 1L = 1000 mL
1 L: 1000 mL = 0.7 L: X mL
 $\text{X} = 700 \text{ mL}$

(c) 180 mcg = _____ mg → conversion factor: 1000 mcg = 1 mg
1000 mcg: 1 mg = 180 mcg: X mg
 $180 / 1000 = 1000 \text{ X} / 1000$
 $\text{X} = 0.18 \text{ mg}$

(d) 1.6 mg = _____ mcg
1000 mcg: 1 mg = X mcg: 1.6 mg
 $\text{X} = 1600 \text{ mcg}$

(e) 51 mL = _____ L → conversion factor: 1L = 1000 mL
1000 mL: 1L = 51 mL: X L
 $51 / 1000 = 1000 \text{ X} / 1000$
 $\text{X} = 0.051 \text{ L}$

(f) 42 lb: _____ kg → conversion factor: 1 kg = 2.2 lb

1 kg: 2.2 lb = X kg: 42 lb

$2.2 X / 2.2 = 42 / 2.2$

X = 19.1 kg

(g) 3.5 oz = _____ mL → conversion factor: 30 mL = 1 oz

1 oz: 30 mL = 3.5 oz: X mL

X = 105 mL

(h) 60 lb = _____ kg

1 kg: 2.2 lb = X kg: 60 lb

$2.2 X / 2.2 = 60 / 2.2$

X = 27.3 kg

(i) 66 lb = _____ kg

2.22 lb: 1 kg = 66 lb: X kg

$66 / 2.2 = 2.2 X / 2.2$

X = 30 kg

(j) 7 oz = _____ mL

30 mL: 1 oz = X mL: 7 oz

X = 210 mL

(k) 72 kg: _____ lb

1 kg: 2.2 lb = 72 kg: X lb

X = 158.4 lb

7. 10 + 8 + 6 = 24 oz → 1 oz: 30 mL = 24 oz: X mL

X = 720 mL

8. 8 + 6 + 4 = 18 oz → 1 oz: 30 mL = 18 oz: X mL

X = 540 mL

9. 1 kg: 2.2 lb = X kg: 11 lb

$2.2 X / 2.2 = 11 / 2.2$

X = 5 kg → 95 kg - 5 kg = 90 kg = client's current weight

10. 100 mg

11. 1 capsule

12. 15 mg

13. 125 mg: 5 mL = 250 mg: X mL

$1250 / 125 = 125 X / 125$

X = 10 mL

14. 40 mg: 1 tab = 60 mg: X tab
 $60/40 = 40 X/40$
 $X = 1.5$ tablets
15. 25 mg: 1 tablet = 75 mg: X tablet
 $75/25 = 25 X/25$
 $X = 3$ tablets
16. 20 mg: 10 mL = 6 mg: X mL
 $60/20 = 20 X/20$
 $X = 3$ mL
17. 5 mg: 10 mL = 1 mg: X mL
 $10/5 = 5 X/5$
 $X = 2$ mL
18. 300 mg: 1 tablet = 150 mg: X tablet
 $150/300 = 300 X/300$
 $X = 0.5$ tablet
19. 60 mg: 2 mL = 90 mg: X mL
 $180/60 = 60 X/60$
 $X = 3$ mL
20. 100 mg: 1 mL = 300 mg: X mL
 $100 \text{ mg } X = 300 \text{ mg}$
 $X \text{ mL} = 300 \text{ mg} / 100 \text{ mg}$
 $X = 3 \text{ mL}$

Reading Comprehension Answers

1. What is Pablo Picasso best known for?
 - a. He is best known for having several distinct styles in his work.
 - b. He is best known for making Spanish painters better known.
 - c. He is best known for co-founding the Cubist Movement.
 - d. He is best known for working in several mediums.
2. Why was the Cubist Movement important?
 - a. It contained strangely composed images.
 - b. It was different than the art that was popular.
 - c. It made people want to look at art in museums.
 - d. It promoted personal expression over established ideas.
3. Picasso also had a Rose Period. What do you think those paintings looked like?
4. Why do you think Picasso's work has sold for so much money?

The pictures in this period were in shades of red and pink.

Picasso changed the way the world interacted with art. The work he produced changed the way that art was made, displayed, received, and viewed by the public.

1. In what year did Dr. Semmelweis perform his hand washing study?
 - a. 1874
 - b. 1902
 - c. 1847
 - d. 1865
2. How did Louis Pasteur help prove germ theory and Dr. Semmelweis' theory?
 - a. By showing that air did not cause meat to spoil.
 - b. That covering meat causes it not to spoil.
 - c. By showing that flies grow from maggots.
 - d. By telling people about Semmelweis' work.

3. What industries besides health care benefit from hand washing?

Food service, child care, manufacturing, laboratory work.

4. How would the world be different without the confirmation of germ theory?

More people would die from infectious and contagious diseases. We would not have antibiotics. We would not have many life-saving vaccines.

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