The value of any assignment is not the answer or the marks, it is in your *development* of an answer.

Academic referencing of sources is standard practice for quotations or paraphrased ideas you present in your submission. Attributing the sources from where we learned something is an ethical tradition: to recognize and honour those from whom we learned those ideas & words, so that we represent ourselves fairly, and to be mindful not to confuse ourselves, or have anyone else confuse us, with the source. And all the cool people do it.

Assignment and quiz 'answers' from other students can be found through a web search. Using academic work found on 'study' websites is a violation of academic integrity. So is posting it there. SafeAssign can easily find and identify those items when they are submitted again. The 'answers' are usually wrong, and glaringly so. ("A" students tend not to post their work for use by others.)

Only journals, library resources, published books, and original source websites (e.g. Microsoft.com) count as research for ideas learned or quotations taken to support your work. However, using such legitimate research without citation and referencing, is still plagiarism.

Marks are given only for your original work, not anyone else's.

SafeAssign

Submissions are checked for plagiarism using SafeAssign. Students can view SafeAssign's originality report for each activity submission. There is a time delay generating the report.

SafeAssign cannot count or do arithmetic – *ignore the percentage match*; it can show a 100% match even when your own unique answers are not matched. You will see it matching on questions and simple factual answers. Of course it matches on the question text, every submission includes the question text! But SafeAssign has no way for the professor to mask out boilerplate text. (SafeAssign is what it is and is what we've got.)

What SafeAssign does do well is highlight answer text that may have been copied from other student assignments or outside resources. Examine the details of *individual matches* in the SafeAssign report. If the details show a close match with your answers, then we might have a problem.

Paraphrasing

Paraphrasing does not count as original work – it barely qualifies as a grammar exercise. Paraphrasing is plagiarism if the source and the extent of paraphrasing is not accurately cited and referenced. See Seneca's academic integrity resources.

"Evade the utilization of rephrasing implements" is the result from a paraphrasing tool for "Avoid the use of paraphrasing tools." Paraphrase generators do not hide plagiarism, they make it glaringly obvious because their mindless use of a thesaurus results in poor English usage. A submission containing any text that has been through a paraphrase generator will certainly receive fewer marks

due to poor readability. Paraphrased answers without attribution – plagiarism – will result in an assignment mark of zero or less, and an Academic Integrity Report with additional consequences.

Translating

Seneca is quite clear about its expectations of English literacy. If you need a translation tool, you have not met the expectation. (A language-to-English-to-language dictionary can be used to confirm your use of terms.)

Automated translation tools produce text similar in quality to paraphrasing tools: extraordinarily awkward and mostly unreadable. Here is an example. An answer submitted with such translation will be treated like paraphrased text because it is impossible to tell the difference.

Facility with English

Marks are awarded for the clear explanation of concepts and ideas in English. Marks are not deducted for poor spelling, grammar, or usage. However, without proper spelling, good grammar, and appropriate usage, the explanation of concepts and ideas will suffer and accordingly so will the marks.

More than just your opinion is being asked in this activity. An opinion is subjective, it is your point of view, your preference, what matters to you, and nobody needs to listen to it. If you want others to consider your standpoint, a reasoned argument supported by facts, principles, and analysis is required. An argument carries weight, could change others' point of view, and could matter to many other people.

See No, you're *not* entitled to your opinion.

✓ **Note for any course**: answers copied and pasted without citation and referencing will result in a minimum of zero marks **FOR THE ENTIRE SUBMITTED WORK**, may incur a sanction (a negative mark), and may be subject to Academic Integrity review. Please DO *discuss* aspects of the activity with your colleagues and professor but create the answer in your own words according to your own understanding.
The integrity rule: **talk all you want, read all you want, but don't copy/paste** *anything* without attribution, citation, and references. Share ideas, not files.

✓ "Study resource" sites like chegg and coursehero want to be searchable to attract paying customers, that is, students. File sharing through those sites is not helping each other or quid pro quo. ("Upload your study documents for free access to other study documents in our library.") It is predatory behaviour by commercial third parties. If educators believed a web search plus copy and paste was scholarship, we would just give you the answers with the questions.

✓ If you don't know about ChatGPT, you will soon. All the questions in this document were submitted to ChatGPT and the answers submitted to the SafeAssign database. Know that SafeAssign looks for equivalent matches, not simple exact word matches. And know that there are

tools and methods to detect ChatGPT usage. All the ChatGPT answers were submitted to a system that uses AI to detect AI generated output. It easily identified ChatGPT's answers as from an AI, and correctly identified bona fide student answers as created by humans.

✓ Generative language Ais are “good at constructing prose, but they can’t construct ideas." — Mark Daley, Western University’s chief digital officer and a faculty affiliate of the Vector Institute for Artificial Intelligence (tgam, Jan. 16, 2023)

Select:

- **A single logic task from Algorithms and Pseudocode**
- **A single topic ICT Past, Present, and Future**
- **Write 250+ words for each.**

Note that the minimum word count gets more or less average marks depending on the quality of content. To go above average, see the marking rubric in the course Announcements.

The notes under some questions are there to stimulate thought and help frame the question; they are not meant to be prescriptive.

Algorithms and Pseudocode

Answer **one** of the following logic questions. *In addition,* critically a**ssess how much general knowledge and “common sense” is needed to carry out your algorithm or pseudocode successfully.** An algorithm is a step-by-step procedure to solve a problem. Pseudocode, i.e. fake code, is generic programming instructions not specific to a language. For our purposes, consider algorithm and pseudocode equivalent.

All software languages have three kings of logic: sequential, conditional (decision | selection), and iterative (looping). Pseudocode includes those structural concepts but is intended for human reading rather than source code compiling, so the only proscribed syntax and style is *clarity*. The most useful format for an algorithm or pseudocode is a numbered list, *not prose*.

How hard can it be? There is much tacit knowledge you know *without explicit analysis* that a robot also needs to complete the task without wrecking your home. E.g. you know to open the door to the fridge or cupboard before getting something out of it.

➔ What general knowledge and “common sense” is assumed in order to carry out the instructions (you are about to write) successfully?

- That is perhaps more important than the instructions themselves. Computers and robots don't know what you mean, just what you say.

Select **one** of the following:

➔ **What is the…**

- algorithm to get a week's worth of Seneca SDDS schoolwork done within a week?
  (while managing your sanity and physical wellbeing)
- algorithm to address a daily necessity, "How do we decide what are we having for dinner?"
- pseudocode for a robot to make your favourite beverage in the morning?
- pseudocode for a robotic vacuum to clean your floors
  (without destroying the place or giving the cat PTSD)?
- pseudocode for a robot to clean your dishes?
  (You don't get anything clean without getting something else dirty. —Cecil Baxter)
- pseudocode for a robot to empty the dishwasher?
  (so as you can find the cutlery and crockery later, please)

ICT Past, Present, and Future

Select **one** ➔ question …

➔ **Just how many different programming languages do we really need for high level, general purposes, e.g. as used for user-facing application programming?**
N.B. Of course, low-level languages are needed for hardware specific purposes: operating systems, device drivers, compilers, virtual machines, and embedded devices. Those low-level uses of languages are outside the scope of the above question.

As computer hardware gets faster and more capable, the performance difference among the various high-level, general purpose language types might become insignificant. Could a single language become the one universal high-level, all-purpose application language?

Make a case in favour of the many and against the one (or the few).
OR
Make a case against the many and in favour of the one (or the few).

➔ **Can recipes be considered as programs?**
Is a recipe really an algorithm to solve a problem? Programming uses sequential, iterative, and decision logic to implement an algorithm. Are those three types of logic sufficient to produce the result of a recipe? The application of an algorithm *in various environments* can be the real challenge. Systems people call those Use Cases.

Tea is the most popular drink on the planet. The algorithm/computer/robot must distinguish between making tea, drinking tea, and the phrase "Let's have tea" which usually means both.
"Hey robot, make tea." — "Tea is made by the Camellia Sinensis plant. I'm a robot."
"Hey robot, make me a cup of tea." — "It is impossible to make a cup from tea."
"Hey robot, let's have tea." — "You already have tea. It's in the cupboard. Or in the Roman alphabet between S and U." And stop waking me while I'm recharging."

Assume there is a selection of different kinds of tea available for making tea.
"Put tea into a pot or cup, add H_2O at 100°C until level is 15mm from rim".
It sounds simple but does all tea require 100°C H_2O? How much tea relative to water and what are the

units of measure? How long should the tea steep? Should the tea leaves be left in the pot/cup or removed after steeping? How would you make tea in your kitchen, at Seneca, camping in the wilderness during summer or the depths of winter, on the International Space Station? Is there an algorithm to make any kind of tea…anywhere…under any conditions?

➔ **How does cloud computing change our need for personal computing hardware?**
Computer hardware ranges from mainframes and servers to personal computers to smartphones to embedded systems. The Internet brings it all together. Many feel as though marooned on a desert island when a network connection is not available. Assuming effective HCI (human computer interaction) along with reliable and fast-enough communications, does cloud computing make the end-user's hardware irrelevant? Does the cloud move performance issues away from personal hardware? (Do you really, really need the latest smartphone?)

➔ **Cats...are they ruining the Internet or responsible for its development?**

Giving credit where it is due… the following are worthy questions students have posed and answered (you can select from these, too):

➔ **Has ICT really revolutionized the world, or has it just made it faster? Are we in a new information revolution, or are we past it?**

➔ **Make up your own question germane to this week's ideas and answer it, but it must be an *interesting* question.**

https://xkcd.com/927/
The great thing about computing standards is there are so many *to choose from.*