

1. Foundational

Context: Describe the foundational role of mathematics in computer science, using a complex sentence structure.

Original Sentence: Mathematics takes a foundational role in the field of Computer Science, which is the background of Cryptography.

- Clear Meaning: 1
- Correct Spelling: 1
- Instruction from the Question: 1
- Correct Grammar: 1
- Total: 4/4

Revision: Mathematics plays a foundational role in the field of Computer Science, serving as the critical *backbone* for *disciplines* such as Cryptography and algorithm design, *thereby* enabling sophisticated computational processes.

Extended Knowledge:

1. What is Complex sentence?

A **complex sentence** is a type of sentence that contains one independent clause and at least one dependent (or subordinate) clause. The independent clause is a complete thought and can stand alone as a sentence, while the subordinate clause cannot stand alone because it depends on the main clause to make sense.

Ex) I went to the store because I needed some milk.

Although it was raining (dependent clause), we decided to go hiking (independent clause).

The dependent clause here starts with "although" and gives the condition for the action.

When the teacher arrived (dependent clause), the students stopped talking (independent clause).

The dependent clause tells us when the action of the independent clause happened.

She didn't go to the party (independent clause) because she was feeling sick (dependent clause).

The dependent clause gives the reason for the action.

2. How to use thereby?

"Thereby" is an adverb used to indicate that something happens as a result of or because of a particular action or situation. It essentially means "*as a result of that*" or "*by doing so*."

Structure:

Independent clause, thereby + verb-ing (present *participle*) or causing + resulting action.

Examples:

-He improved his coding skills, thereby increasing his chances of getting hired.

-The company reduced its costs, thereby *boosting* its *profits*.

"Thereby" typically comes after a comma following the main clause. It should be followed by a verb in its present participle form (ending in -ing) to show the resulting action.

Incorrect usage: He solved the problem thereby he gained more respect.

This is incorrect because "thereby" does not introduce a new clause with a subject and verb.

Correct usage: He solved the problem, thereby gaining more respect.

This shows that gaining respect is a result of solving the problem.

2. Indispensable

Constraint: Use indispensable in a sentence that explains the role of water in human survival, including a comparative structure.

Original Sentence: Water is indispensable for human survival, whereas people will die without water in 2 weeks.

- Clear Meaning: 1
- Correct Spelling: 1
- Instruction from the Question: 1
- Correct Grammar: 0 (The comparative clause is awkwardly constructed; consider revising for clarity and flow.)
- Total: 3/4

Revision: Water is indispensable for human survival, especially when compared to food, as a person can survive weeks without the *latter* but only days without water.

Extended Knowledge:

What is function of 'as' here and how to use it by this way?

In the given sentence, "**as**" introduces an explanation for why water is more indispensable than food, comparing the survival time without each. The word "as" is highly versatile and has multiple uses in English. It can function as a conjunction, preposition, or adverb, and its meaning changes depending on the context. Below are the different ways to use "as":

1. As a Conjunction (to introduce clauses):

a) Reason/Cause (similar to "because" or "since"); As = Because or Since.

Meaning: Used to explain why something happens.

Example: As it was raining, we stayed indoors.

b) Comparison (similar to "like" or "the same way that")

Meaning: Used to show how two things are similar.

Example: He sings as his father used to.

As shows similarity in the way the two people sing.

Ex) He works as well as his father does.

c) Time (when or while)

Meaning: Used to indicate two events happening at the same time.

Example: She smiled as she *greeted* her guests.

As = While.

2. As a Preposition:

a) Role/Function

Meaning: Used to describe the role or purpose of a person or thing.

Example: He works as a teacher.

As describes his job role.

b) In the capacity of

Meaning: Refers to using something or someone in a particular role.

Example: She used her jacket as a *pillow*.

As describes the function of the jacket (it was used as a pillow).

3. As an Adverb:

a) In comparisons of degree (similar to "equally")

Meaning: Used to compare two things.

Example: She's as tall as her brother.

As ... as is used to show equality in height.

4. As a Relative Pronoun (informal use):

a) In the sense of "which"

Meaning: In informal language, "as" can replace "which" when referring to something just mentioned.

Example: Such incidents, as were reported, will be investigated.

Here, as means which (this use is less common and quite formal).

Summary of Common Usages of "As":

Conjunction:

Cause/Reason: As it was late, we decided to go home.

Comparison: He runs as fast as his brother.

Time: As I was leaving, the phone rang.

Preposition:

Role/Function: He was hired as a *consultant*.

Capacity: She served as president for three years.

Adverb:

Comparison of degree: It's not as cold as it was yesterday.

Enhancement of usage:

Her oral work is as good as her sister's. She does oral work as well as her sister does.

Special Structures with "As":

As if / As though: Used to describe something that appears to be a certain way but isn't necessarily true.

Example: He acts as if he knows everything.

As long as / As far as / As soon as: These phrases add specific meanings related to conditions, limits, or time.

Example: As long as you study hard, you will pass.

3. Omit

Context: *Craft* a sentence about editing an academic paper where omit is used to describe removing superfluous details to enhance clarity.

Original Sentence: He was removing superfluous details to enhance clarity of his paper, while he trusted that omit these will make his paper better.

- Clear Meaning: 0 (The sentence is somewhat unclear due to grammatical errors.)
- Correct Spelling: 1
- Instruction from the Question: 1
- Correct Grammar: 0 (Incorrect verb tense and structure; should be something like "omitting these would make his paper better.")
- Total: 2/4

Revision: He *omitted superfluous* details from his paper, trusting that this *refinement* would enhance its clarity.

4. Upon

Constraint: Use upon in a formal announcement of a new policy *implementation*, linking the policy *activation* to a specific *trigger* event.

Original Sentence: Upon the new policy was published, people celebrated it whole day.

- Clear Meaning: 1
- Correct Spelling: 1
- Instruction from the Question: 1
- Correct Grammar: 0 (Grammatical structure is incorrect; should be "Upon the publication of the new policy, people celebrated all day.")
- Total: $\frac{3}{4}$

Revision: Upon the publication of the new policy, the community celebrated *throughout* the day.

Extended Knowledge:

How to use 'throughout'

"Throughout" is a preposition and adverb that means **in every part of** or **during the whole of** a particular period or space. It is used to indicate something that happens continuously or is spread across a whole area or time frame.

Ways to use "throughout":

1. Throughout (preposition) – Time: Throughout + time/noun of activity

Used to express that something happens during the entire time period.

- **Meaning:** Over the whole duration of a particular time.
- **Example:** *She remained calm throughout the meeting.*
 - Meaning: She stayed calm for the entire duration of the meeting.
- **Example:** *Throughout the day, it was raining heavily.*
 - Meaning: It rained continuously during the whole day.

2. Throughout (preposition) – Space/Location:

Used to indicate that something is *spread* across or occurs in every part of a place.

- **Meaning:** In every part of a place or location.
- **Example:** *There are beautiful paintings throughout the museum.*
 - Meaning: Beautiful paintings can be found in all parts of the museum.
- **Example:** *He travelled throughout the country during the summer.*
 - Meaning: He travelled to many places across the whole country.

3. Throughout (adverb):

Sometimes, "throughout" is used alone as an adverb, meaning continuously or during the entire period of time.

- **Example:** *The event was well-organized throughout.*
 - Meaning: The event was well-organized the whole time.

Usage summary:

- **Throughout** can refer to both **time** and **space**, meaning either "during the entire period" or "in every part."
- You can use **"throughout"** to emphasize that something occurs continuously or is present everywhere within a given scope.

More examples:

- **Time:** *She worked hard throughout the project.*
- **Space:** *They searched throughout the house for the missing keys.*
- **Adverb:** *The conference was well-organized, and he worked hard throughout.*

5. While

Context: Construct a sentence showing a contrast between two scientific theories, using while to

introduce the contrast.

Original Sentence: Cryptography is introducing security of CS, while Computer Graphics is introducing visibility of CS.

- Clear Meaning: 1
- Correct Spelling: 1
- Instruction from the Question: 1
- Correct Grammar: 0 (Phrase construction is awkward; consider "Cryptography introduces security in CS, while Computer Graphics enhances its visibility.")
- Total: 3/4

Revision: While Cryptography enhances the security aspects of Computer Science, Computer Graphics improves its visual representation.

6. Whereas

Constraint: Write a sentence for a legal document that contrasts the responsibilities of two different parties, using whereas to highlight these differences.

Original Sentence: The policy AB-1 requires male to respect female, whereas the policy BA-15 delineate the trends of salary improvement that male much more than female.

- Clear Meaning: 0 (The sentence is confusing and lacks clarity in expressing the policies.)
- Correct Spelling: 1
- Instruction from the Question: 1
- Correct Grammar: 0 (Grammar issues with *subject-verb agreement* and clarity; "delineates", "males" and "females" should be used, and *restructuring* is needed for clarity.)
- Total: 2/4

Revision: Whereas policy AB-1 *mandates* gender respect, policy BA-15 addresses salary *inequities* by delineating improvements in *compensation*, showing males benefit more than females.

Extended Knowledge:

What's the function of 'compensation' here?

-Function of "compensation":

- 1.Noun (subject of the phrase): It refers to the pay or financial remuneration employees receive.
- 2.In the context of this sentence, "compensation" is the area being improved to address salary inequities between males and females. The sentence suggests that the changes in compensation tend to benefit males more than females, highlighting a *disparity* even when addressing inequities.

7. Syntax

Context: Explain the importance of syntax in programming language design, in a sentence that includes a conditional clause.

Original Sentence: We will construct a well-written sentence, while we understand the knowledge of syntax.

- Clear Meaning: 1
- Correct Spelling: 0 (Well-written)
- Instruction from the Question: 0 (Does not include a conditional clause as required.)
- Correct Grammar: 1
- Total: 2/4

Revision: Understanding the syntax is essential, as it allows us to construct *well-formed* sentences

that adhere to the design principles of programming languages.

8. Persuasively

Constraint: Create a sentence where a politician argues persuasively for environmental conservation, using statistical evidence and emotional appeal.

Original Sentence: There are enough statistical evidences and emotional appeals show that people have to protect environment, which persuasively altered politicians' thinking.

- Clear Meaning: 0 (The message is unclear and clumsily presented.)
- Correct Spelling: 0 (Should be "evidence", not "evidences".)
- Instruction from the Question: 1
- Correct Grammar: 0 (Grammar issues with structure and coherence; consider revising for clarity and correct use of terms.)
- Total: 1/4

Revision: The politician persuasively *argued for* environmental protection, presenting *compelling* statistical evidence and making *emotional appeals* that shifted his *colleagues'* perspectives.

9. Sophisticated

Context: Describe a sophisticated artificial intelligence system in a sentence that includes technical *jargon* appropriate for a scientific conference.

Original Sentence: Machine learning describes sophisticated mechanism, which trains data and constructs models.

- Clear Meaning: 1
- Correct Spelling: 1
- Instruction from the Question: 0 (The sentence could use more technical jargon to fit a scientific conference context.)
- Correct Grammar: 1
- Total: 3/4

Revision: Machine learning *utilizes* sophisticated algorithms that process *vast* datasets to construct predictive models, *showcasing* the advanced capabilities of artificial intelligence.

10. Deliberate

Constraint: Write a sentence about a strategic business decision, using deliberate to imply that the decision was made after careful consideration and with a specific aim.

Original Sentence: The manager make a deliberate decision, which omit a part of report, she trusts that it will also archieve their strategic goal in project budge.

- Clear Meaning: 0 (The sentence is unclear and confusing.)
- Correct Spelling: 0 (Achieving)
- Instruction from the Question: 0 (The sentence does not effectively convey that the decision was made after careful consideration.)
- Correct Grammar: 0 (Multiple grammatical errors; should be "The manager made a deliberate decision to omit a part of the report, trusting that it would also achieve their strategic goal within the project budget.")
- Total: 1/4

Revision: The manager made a deliberate decision to omit non-critical sections of the report, a

strategic choice aimed at *streamlining* the presentation and ensuring the project stays within budget.