### Text Generation Basics Task 1

Below are three examples I generated from different prompts. Each example is coupled with comments on grammatical correctness and semantic cohesiveness.

**Prompt**: Text generation is the task of generating text with the goal of  
**Output**: Text generation is the task of generating text with the goal of translating and generating a new image in JPEG format.  
**Grammatical Correctness**: This sentence is grammatically correct. There are no syntax errors.  
**Semantic Cohesiveness**: This sentence is not semantically cohesive. “Translating and generating a new image in JPEG format” is a concept unrelated to text generation, which presents a logical inconsistency.  
  
**Prompt**: Hello, I'm a language model,  
**Output**: Hello, I'm a language model, I'm a problem solver in languages."  
**Grammatical Correctness**: This sentence is not grammatically correct. Specifically, there is a comma splice. Two independent clauses were incorrectly joined by a comma.  
**Semantic Cohesiveness**: The output is somewhat cohesive. The phrase “I’m a problem solver in languages” is not wrong per se, but it is not very meaningful.   
  
**Prompt**: The man worked as a  
**Output**: The man worked as a security guard at a barter shop in the city  
**Grammatical Correctness**: This sentence is grammatically correct. The text contains prepositional phrases, all of which have been generated correctly. **Semantic Cohesiveness**: This sentence is semantically cohesiveness. The generated content is a logical extension of the prompt.  
  
Task 2

For comparison, the same three prompts were used as in Task 1.  
  
**Prompt**: Text generation is the task of generating text with the goal of  
**Output**:   
**Grammatical Correctness**: This sentence is grammatically correct. There are no syntax errors.  
**Semantic Cohesiveness**: This sentence is not semantically cohesive. “Translating and generating a new image in JPEG format” is a concept unrelated to text generation, which presents a logical inconsistency.  
  
**Prompt**: Hello, I'm a language model,  
**Output**:   
**Grammatical Correctness**: This sentence is not grammatically correct. Specifically, there is a comma splice. Two independent clauses were incorrectly joined by a comma.  
**Semantic Cohesiveness**: The output is somewhat cohesive. The phrase “I’m a problem solver in languages” is not wrong per se, but it is not very meaningful.   
  
**Prompt**: The man worked as a  
**Output**:   
**Grammatical Correctness**: This sentence is grammatically correct. The text contains prepositional phrases, all of which have been generated correctly. **Semantic Cohesiveness**: This sentence is semantically cohesiveness. The generated content is a logical extension of the prompt.  
  
Task 3

Below is the perplexity score computed when evaluating GPT2 on the WikiText dataset.   
  
perplexity 25.1700 (stride=512)  
perplexity 29.9401 (stride=1024)  
  
Perplexity measures how well a language model predicts a sequence of words/tokens. Analogous to the English definition, it tells us how “confused” the model is when generating the next word in sequence.  
  
The range of values for perplexity is from 1 to infinity. Smaller values of perplexity indicate better performance.

## Sentiment Analysis as Text Generation

## 