Problem Chosen	2026 MCM/ICM Summary Sheet	Team Control Number
C		123456

This is a Title

Summary

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In Question 2,

In Question 3,

Keywords: keyword 1, keyword 2, keyword 3, keyword 4, keyword 5

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1 Introduction

1.1 Background

1.2 Restatement of the Problem

1.
2.
3.
4.
5.

1.3 Our Work

2 Assumptions and Justifications

In response to the title of this article, the following hypotheses are proposed:

Assumption 1: This is the first assumption 1.

Assumption 2: This is the second assumption 2.

Assumption 3:

Assumption 4:

Assumption 5:

1.

3 Notations

Symbol	Description	Symbol	Description
T_i	Temperature of small zone	T_j	Temperature of large zone
x	Variable x	y	Variable y

Note: Undefined variables are defined where they first appear.

4 Data Preprocessing

Step 1: good morning...

Step 2: good morning....

1.

5 Model Building and Solution

5.1 Model Establishment and Solution of Question One

5.1.1 ***Model Establishment

5.1.2 ***Model Solution

5.1.3 Results

5.2 Second-level Heading

5.2.1 Third-level Heading

5.2.2 List Environment

1.

2.

(a)
(b)

-
-

5.2.3 Figure

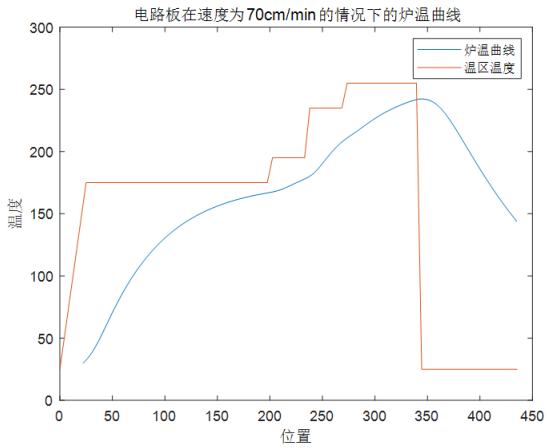


Figure 1: Figure Name

TOPS: How to cite, look here: fig. 1

5.2.4 Table

TOPS: How to cite, look here: table 1

Table 1: Table Name

Welding Zone Center Temperature	Time (s)
30°C	0
150°C	t_1
190°C	t_2

5.2.5 Formula

$\alpha^2 + \beta^2 = \gamma^2$

$$\alpha^2 + \beta^2 = \gamma^2$$

$$\alpha^2 + \beta^2 = \gamma^2$$

$$\alpha^2 + \beta^2 = \gamma^2 \tag{1}$$

$$a + b = c \tag{2}$$

TOPS: How to cite, look here: eqs. (1) and (2)

How to cite references, look here: [1], [2]

6 Sensitivity Analysis and Error Analysis

6.1 Sensitivity Analysis

6.2 Error Analysis for Question 1

6.3 Error Analysis for Question 2

7 Model Evaluation

7.1 Advantages of the Model

(1)
(2)
(3)

7.2 Disadvantages of the Model

(1)
(2)
(3)

8 Conclusion

References

[1] Forsburg, Susan L. "Eukaryotic MCM proteins: beyond replication initiation." Microbiology and molecular biology reviews 68.1 (2004): 109-131.

[2] Jenkin, M. E., J. C. Young, and A. R. Rickard. "The MCM v3. 3.1 degradation scheme for isoprene." Atmospheric Chemistry and Physics 15.20 (2015): 11433-11459.

[3]

[4]

[5]

[6]

[7]

[8]

[9]

[10]

Report on Use of AI

1. Bing AI
   Query1: write a sort algorithm
   Output: Sure, I can help you with that. Here is a simple implementation of the selection sort algorithm in Python:

```python
def selection_sort(arr):
    for i in range(len(arr)):
        min_idx = i
        for j in range(i + 1, len(arr)):
            if arr[min_idx] > arr[j]:
                min_idx = j
        arr[i], arr[min_idx] = arr[min_idx], arr[i]
    return arr
```

   This algorithm sorts an array by repeatedly finding the minimum element from the unsorted part of the array and putting it at the beginning. The time complexity of this algorithm is O(n^2).

   There are many other sorting algorithms available such as bubble sort, insertion sort, merge sort, quick sort, heap sort, and more. Each of these algorithms has its own advantages and disadvantages. You can learn more about them on GeeksforGeeks and Programiz.

   I hope this helps!

2. OpenAl Enie (Nov 5, 2023 version, Ernie 4.0)
   Query1: <insert the exact wording of any subsequent input into the Al tool>
   Output: <insert the complete output from the second query>

3. Github CoPilot (Feb 3, 2024 version)
   Query1: <insert the exact wording you input into the Al tool>
   Output: <insert the complete output fron the Al tool>

4. Google Bard (Feb 2,2024 version)
   Query: <insert the exact wording of your query>
   Output: <irsert the complete output from the Al tool>

5. Bing AI
   Query: write a FFT algorithm
   Output: Sure, here is a Python implementation of the Fast Fourier Transform (FFT) algorithm:

```python
import numpy as np

def fft(x):
    n = len(x)
    if n == 1:
        return x
    even = fft(x[0::2])
    odd = fft(x[1::2])
    T = [np.exp(-2j * np.pi * k / n) * odd[k] for k in range(n // 2)]
    return [even[k] + T[k] for k in range(n // 2)] + [even[k] - T[k] for k in range(n
        // 2)]
```

The FFT is a widely used algorithm for computing the **Discrete Fourier Transform (DFT)** of a sequence. It reduces the number of computations needed from $O(n^2)$ to O(n log n) 12. The basic idea of the FFT is to apply divide and conquer. We divide the coefficient vector of the polynomial into two vectors, recursively compute the DFT for each of them, and combine the results to compute the DFT of the complete polynomial 3.

I hope this helps!