This is a title

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Contents

1   This is the section name

1.1   This is the subsection name

> **Theorem 1.1 Name of thm**
> This is a theorem.

Definition 1.2 (Name for df). This is a definition.

> **Example 1.3** This is an example
>   ***Solution 1.***
>
>   ☐

Remark 1.1 *This is a remark*

    Proof 2. This is a proof   ■

Corollary 1.4 : This is a corollary

Lemma 1.5 : This is a lemma

Proposition 1.6 : This is a proposition

Conjecture 1.7 : This is a conjecture

Axiom 1.8 : This is an axiom.

Answer.m

```matlab
% Plot function f(x) = 2*x^3 - x - 2
ezplot('2*x^3-x-2', [0, 2])
hold on
plot([0, 2], [0, 0], 'r')
```

```python
def __self__(self):
for i in range(10):
    print(f"This number is {i}.")
```

```java
public static void main(String[] args) {
    System.out.println("Hello World!"); // comment
}
```

Algorithm 1: Bisection Algorithm

Input: $a, b, M, \delta, \varepsilon$
$u \leftarrow f(a)$
$b \leftarrow f(b)$
$e \leftarrow b - a$
Output: output

1 **begin**
2   **if** $sign(u) = sign(v)$ **then**
3   **stop**
4   **for** $k=1$ **to** M **do**
5          $e \leftarrow e/2$
6          $c \leftarrow a + e$
7          $w \leftarrow f(c)$
8   **return** k, c, w, e
9   **if** $|e| < \delta$ **or** $|w| < \varepsilon$ **then**
10   **stop**
11   **if** $sign(u) \neq= sign(v)$ **then**
12            $b \leftarrow c$
13            $v \leftarrow w$
14   **else**
15            $a \leftarrow c$
16            $u \leftarrow w$