

This is a title

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1 This is the section name

1.1 This is the subsection name

Theorem 1.1.1 Name of thm
This is a theorem.

Theorem

Definition 1.1.2 (Name for df). This is a definition.

Definition

Example 1.1.3

This is an example

Solution 1.

Solution.

□

□

Remark 1.1 *This is a remark*

Proof 2. This is a proof ■

Proof.

□

Disproof 3. ■

Disproof.

□

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.

Claim 1.

Claim

Answer.m

```
1 % Plot function f(x) = 2*x^3 - x - 2
2 ezplot('2*x^3-x-2', [0, 2])
3 hold on
4 plot([0, 2], [0, 0], 'r')
```

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

```
1 public static void main(String[] args) {
2     System.out.println("Hello World!"); // comment
3 }
```

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  $\text{sign}(u) = \text{sign}(v)$  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  $\text{sign}(u) \neq \text{sign}(v)$  then
12        $b \leftarrow c$ 
13        $v \leftarrow w$ 
14     else
15        $a \leftarrow c$ 
16        $u \leftarrow w$ 

```
