

This is a title

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1 This is the section name

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Theorem 1.1.1 Name of thm

This is a theorem.

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

Example 1.1.3 This is an example

Solution 1.



Remark. *This is a remark*

Proof2. This is a proof



Corollary 1.1.4 This is a corollary

Lemma 1.1.5 This is a lemma

Proposition 1.1.6 This is a proposition

Conjecture 1.1.7 This is a conjecture

Axiom 1.1.8 This is an axiom.

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              $u \leftarrow w$ 

```
