

This is a title

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1. This is the question.

Proof 1.



2. This is the question.

Disproof 2.



3. This is the question.

Answer 3.



Answer.m

```
1 % Plot function  $f(x) = 2x^3 - x - 2$ 
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        $u \leftarrow w$ 
```
