

```
/*
```

This is a program to find out the root of a function $f = \exp(x) * \log(x) - x * x$ using Bisection Method.

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```
*/
```

```
# include <iostream.h>
```

```
int main ()
```

```
{
```

```
double f, x, a, b;
```

```
int i = 0, tag = 0;
```

```
a = 0; b = 0;
```

```
do {
```

```
    x = i;
```

```
    f = x * x * x - x - 1;
```

```
    if (f < 0)
```

```
        a = i;
```

```
else {
```

```
    b = i;
```

```
    tag = 1;
```

```
}
```

```
    i++;
```

```
}while (tag != 1);
```

```
    tag = 0;
```

```
do {
```

```
    x = (a + b) / 2;
```

```
    f = x * x * x - x - 1;
```

```
    if (f < 0.0001 && f > -0.0001){
```

```
        cout << x << endl;
```

```
        tag = 1;
```

```
}
```

```
else {
```

```
    if (f < 0)
```

```
        a = x;
```

```
    else
```

```
    b = x;  
}  
}while (tag != 1);  
  
return 0;  
}
```