

```
//Махмудов Суннатилло Баходир угли
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```
//НПИ-03-23
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```
#include <iostream>
```

```
#include <cmath>
```

```
double Exp1(double x, double epsilon) {
```

```
    double result = 1.0;
```

```
    double term = 1.0;
```

```
    int n = 1;
```

```
    while (std::abs(term) > epsilon) {
```

```
        term *= x / n;
```

```
        result += term;
```

```
        n++;
```

```
    }
```

```
    return result;
```

```
}
```

```
int main() {
```

```
    double x = 2.0;
```

```
    double epsilon_values[] = {0.1, 0.01, 0.001, 0.0001, 0.00001, 0.000001};
```

```
    for (double epsilon : epsilon_values) {
```

```
        double result = Exp1(x, epsilon);
```

```
        std::cout << "Приближенное значение exp(" << x << ") с точностью " << epsilon << ": " << result << std::endl;
```

```
    }
```

```
    return 0;
```

```
}
```