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computer graphics lab

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2. Dezember 2003

37-847 Informatik Musterlösung 4 WS03/04

1) Binäre Suche

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

int main()
{
	float x, logx, less, greater, res;
	bool inverse;

	std::cout << "x = ";
	std::cin >> x;

	if(inverse = x < 1.0f)
		x = 1.0f/x;

	less = 0.0f;
	greater = x;

	do {
		logx = (less + greater) * 0.5f;
		res = exp(logx) - x;
		if(res > 0)
			greater = logx;
		else
			less = logx;

	} while(fabs(res/x) > 1.0e-5);

	std::cout << "log(x) = " << (inverse ? -logx : logx) << std::endl;}
```

2) Schleife ändern

```
	int i = n-1;
	while (i > 0) {
		if ( a[i] < a[i-1] ) {
			int t = a[i-1];
			a[i-1] = a[i];
			a[i] = t;
		}
		--i;
	}
```

3) Schleife optimieren

```
	int t = a[0];
	for (int i = 1; i < n; ++i)
		if(a[i] < t)
			t = a[i];
```