

```
1 #include <stdint.h>
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6 http://coding.hsnr.de  
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```



```
14 float Q_rsqrt(float number)
```

```
15 {  
16     long i;  
17     float x2, y;  
18     const float threehalfs = 1.5F;  
19  
20     x2 = number * 0.5F;  
21     y = number;  
22     i = *(long *)&y;  
23     i = 0x5f3759df - (i >> 1); // evil floating point bit level hacking  
24     y = *(float *)&i;         // what???  
25     y = y * (threehalfs - (x2 * y * y)); // 1st iteration  
26     // y = y * ( threehalfs - ( x2 * y * y ) ); // 2nd iteration, this can be removed  
27  
28     return y;  
29 }
```

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