

# Timing v1.01

## Execution timing program

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```
■ timing("2^1000")
10715086071862673209484250490600018104
timing("2^1000")
Timing = 0.11 sec
```

### Syntax:

Timing("command" [, "varname"]) returns the result of command and shows the execution time in the status line. If the optional variable-name argument is provided, the timing value is stored in that variable.

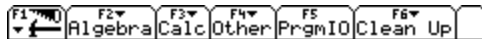
### Requirements:

The total calculation time must be less than an hour, otherwise the timing will not be accurate. Also, to time C programs on HW2 calculators, you **must** first install Kevin Kofler's h220xtsr, which you can get from:

<http://members.chello.at/gerhard.kofler/kevin/ti89prog.htm#h220xtsr>

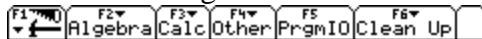
### Examples:

Here's the timing for expanding  $(x+y)^{20}$ :



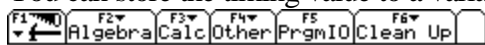
```
■ timing("expand((x+y)^20)")
y^20 + 20·y^19·x + 190·y^18·x^2 + 1140·y^17·x^3 + ...
timing("expand((x+y)^20)")
Timing = 0.53 sec
```

Here's the timing for a Fast Fourier Transform of a 128-element list:



```
■ timing("expand((x+y)^20)")
y^20 + 20·y^19·x + 190·y^18·x^2 + 1140·y^17·x^3 + ...
■ timing("fft(seq(i,i,1,128))")
{8256. - .0000000000003·i 2607.0709678}
timing("fft(seq(i,i,1,128))")
Timing = 4.64 sec
```

You can store the timing value to a variable:



```
■ timing("Σ(1/i^2,i,1,∞)", "timval")  π²/6
■ timval                               .157895
MAIN                                RAD AUTO                                FUNC 2/30
```

#### *What's New:*

- Improved timing accuracy (the interrupt rate given in the TIGCC docs is incorrect)
- Added an option to store the timing value

#### *Bugs and notes:*

- The granularity is about 0.05 second, while the error should be less than 0.05 second.
- To time commands that include strings, use double-quotes for the inner string.  
For example, Timing("strprgm("mystring"))

#### *Thanks to:*

- The TIGCC team
- TICT
- E.W.
- Artraze, for his help with this program.  
He made a timing program along with me; his program is at:  
<http://www.angelfire.com/pa3/cartethus/calc/programs.html>
- Texas Instruments, for such a nice platform (it would be much nicer without the restrictions)

#### *Disclaimer:*

Although this program has been tested, it is still possible that it may crash or hang. I am not responsible for any damage done to your calculator. To reset the calculator, press:

[2nd][LOCK][ON] on the TI-92 Plus

[2nd][LEFT][RIGHT][ON] on the TI-89

If this doesn't reset the calculator, take out a battery, press and hold [(-)][D] while you insert the battery. Of course, this does not mean your calculator will definitely crash or hang ☺ In fact, you should be able to break a calculation by pressing [ON].

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