



## Teacher Notes for Time Up

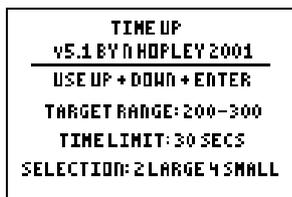
Compatibility: TI-83/83+/83+SE/84+/84+SE

Run The Program Called: **TIMEUP**

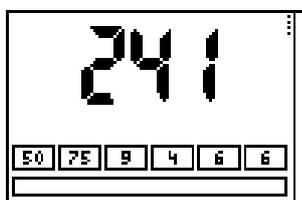
### ► Summary

Based upon the numbers game of a well known TV show, this version allows you to set the target range, time limit and number selection from the start menu.

### ► Features



The target range covers 0-100, 100-200, ..., 800-900 and 100-999. The time limit covers 30s, 45s, 1min, 1m 15s, 1m 30s, 1m 45s and 2min. This will tick away in real time along the bar at the bottom of the screen. Your selection of 6 numbers can have from 0 to 4 “large” numbers with the remainder made up with “small” numbers.



Here “large” is from the set 25, 50, 75 and 100; “small” are integers from 1 to 10 inclusive.

The randomly generated target number is not calculated from the 6 numbers - it is random!

### Reminder of the rules:

The six numbers must be used in conjunction with +, −, × and ÷ to get as close to the target number as possible. You may use the 6 numbers in any order.

You do not need to use all 6 numbers, but you may not use any single number more than once. You may not combine, say, 4 and 6 to make 46.

*It will be at your discretion whether calculators are allowed.*

Collect as many different ways of doing it from the class at the end - this helps reinforce the notion that there is no one right answer. There can, of course, be the most elegant answer!

### ► Suggestions

- ☺ Have it set up at the start of the lesson, to settle the class quickly as they arrive and have some focused mathematical thinking.
- ☺ Use it at the end of a lesson as a “filler”
- ☺ Use it as a stimulus for a main lesson on mental and/or paper methods of calculation.
- ☺ If a target number is very easy to reach using some combination of the six numbers, then challenge the class to find as many different ways as they can to reach the target number. Also can they reach the target number using all of the 6 numbers?
- ☺ For consolidation of negative numbers, pick a target of between 0-100. If you are projecting the image from the OHP Viewscreen onto a white-board, using a dark pen, put in negative signs in front of two or three of the 6 numbers. Same rules apply as normal. This variation draws upon multiplication and division of negatives as well as addition and subtraction - it is very good at coaching efficiency and accuracy in these operations. It is also interesting to note

who realises that you can make any negative number positive again by just placing another negative sign in front of it!

- ☺ Consolidation of fractions, decimals and percentages. Again, with a dark pen, you can change whichever of the 6 numbers: change a number 2 into  $\frac{1}{2}$ , change a 5 into 0.5, change a 25 into 25%. Keep the target number low for these, ideally between 0-100.

### ► Technical Notes

The version of this program that runs on the TI83 does not run on the TI-83+/83+SE/84+/84+SE.

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In case of any errors, check that you are using the correct version for the calculator that you are using.