

[11.7] Saving multiple answers with *solve()* in program

solve() returns multiple answers for simultaneous equations. The answers are returned as an expression, for example

```
x1=1.234 and x2=5.678
```

This works well from the command line, but not within a program. For example,

```
solve({equation1 and equation2},var1,var2)»res1 [DOESN'T WORK!]
```

doesn't work, because TI Basic interprets the *solve()* result as a boolean, evaluates the boolean and saves the result; either *true* or *false*.

This works:

```
string(solve(...))»res1
```

This saves the results as a string, which can be displayed, or decomposed into individual answers by using *inString()* to search for the location of "and", then using *mid()* to extract the answers.

Another solution, which is better in most cases, is to use the *zeros()* function, which is equivalent to

```
exp▶list(solve(expression=0, var))
```

This returns all the solutions as a list, and the individual solutions can be extracted by their position in the list.