

**NAME**

tcalc – Add and subtract time values.

**SYNOPSIS**

**`${HOME}/bin/exe/tcalc 2:37+54`**

**DESCRIPTION**

The program uses GETRGS to get and concatenate the command-line parameters. This packs out any blanks. Then it parses the string for tokens separated by + or – signs.

If the string contains only one token and the token contains a colon, it is converted from HH:MM format to minutes and the minutes are printed out. If the string contains only one token and the token does not contain a colon, it is converted to HH:MM format and the hours and minutes are printed out.

```
tcalc 2:37    prints    0:157
tcalc 157     prints    2:37
```

If the string contains more than one token, the program converts each to minutes, adds the minutes value to or subtracts it from a running total, and when the parameter string is exhausted prints the net number of minutes and the corresponding normalized HH:MM time.

```
tcalc 2:37+54    prints    0:211=3:31
tcalc 2:37-1:54  prints    0:43=0:43
```

If the sum or difference of times is negative, the program also reports the corresponding time yesterday. If the sum or difference of times is greater than 24 hours, the program also reports the corresponding time tomorrow.

```
tcalc 1:54-12:37  prints    -0:643=-10:43 or 13:17 yesterday
tcalc 22:12+5:30  prints    0:1662=27:42 or 3:42 tomorrow
```

**UNITS and FILES**

6    output from the program

**DIAGNOSTICS**

If the requested calculation cannot be performed the program stops without writing anything. These are the possible return codes:

```
0    all went well
1    no argument found
2    too many tokens
3    tokenization failed
```

**BUGS**

If the sum or difference of times is more negative than -24:00 or more positive than 48:00, the reported time yesterday or tomorrow falls outside of that day.

**EXAMPLE**

```
unix[1] tcalc 2:37+54
0:211=3:31
unix[2]
```