# Calculation Examples

Overview

A calculation often involves several calculations. For example if a person was calculating the volume of concrete for the floor slab and footings below it would involve the calculation of the volume of the floor slab and the volume of footings which would then be added together to get the total volume of concrete. The result would then be converted from feet and inches to a more suitable cubic measure such as cubic yards.


Concrete Slab and Footings
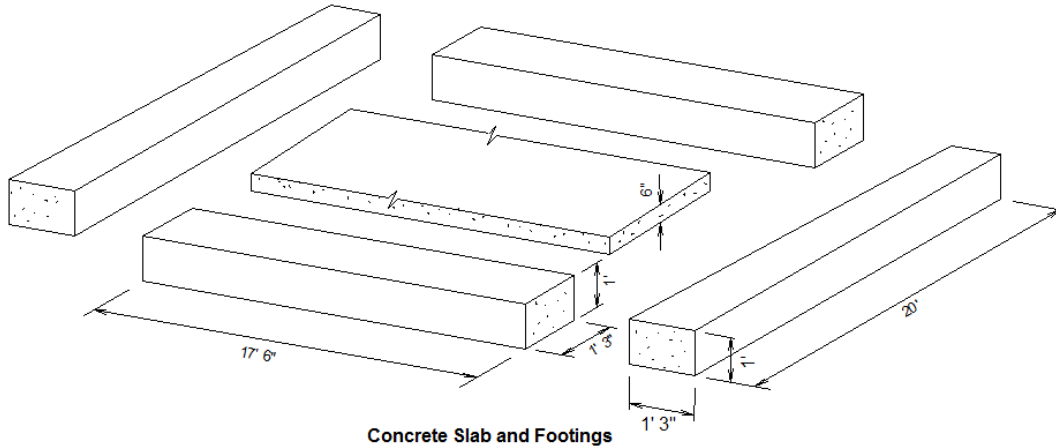
Standard calculators work with one line at a time and would require the user to either write down the sub-total for each line or use the memory of the calculator. The problem with this is the user has no way of viewing the entire calculation and checking the sub-totals. As there is no record of the calculation and the user has to rely solely on their keyboard skills that they did not make a keyboard entry mistake. If the user does make a keyboard entry mistake then the entire calculation needs to be repeated.

This calculator allows the user to enter and view the entire calculation line by line on one screen. The calculator will sub-total, grand total and convert the result. As the user can view the calculation line by line the user can compare and cross check sub-totals – for example the volume of the footings will be different as the length is different however they will be roughly the same. Thus the user can maintain a 'feel' for the calculation. Any corrections or changes can be done directly on the screen.

The calculator also allows the user to print the calculation for say sending to the concrete supplier; and also to save the calculation to a file and so keep a record of how the calculation was made.

Example 1 - Calculate the volume of concrete in cubic yards of a 20'x20' floor with footings

Concrete Slab and Footings
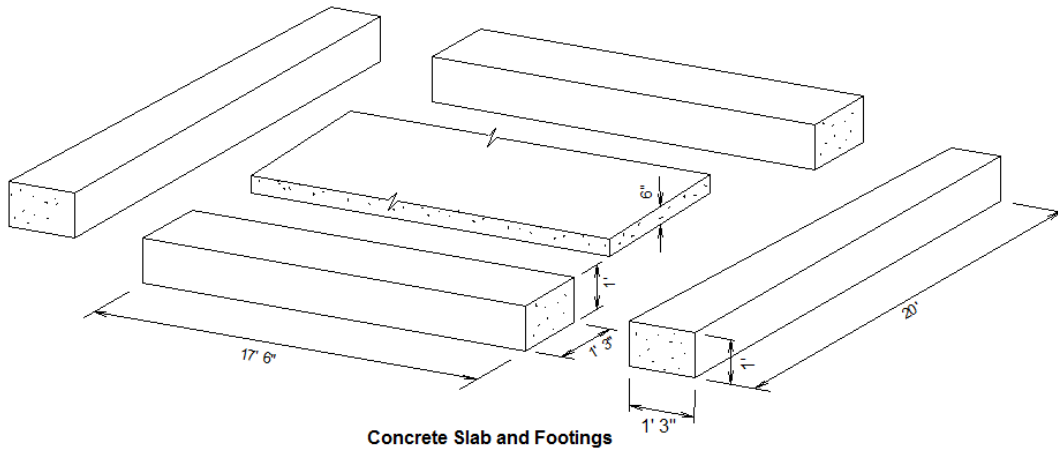
1) Set Units of Measure
Input Units: Default
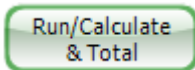Convert Units: cu yds (cubic yards)
Decimal Places: 1 Decimal Places

2) Enter Calculation

```
20' * 1' * 1' 3" *2          ' Footings East West x 2
17' 6" * 1' * 1' 3" *2       ' Footings North South x 2
20' * 20' * 6"               ' Slab
```

3) Click

Note the second line could alternatively be:
(20' – 1' 3" – 1' 3") * 1' * 1' 3" *2 ' Footings North South x 2

Example 2 - Calculate volume of a single footing using variables
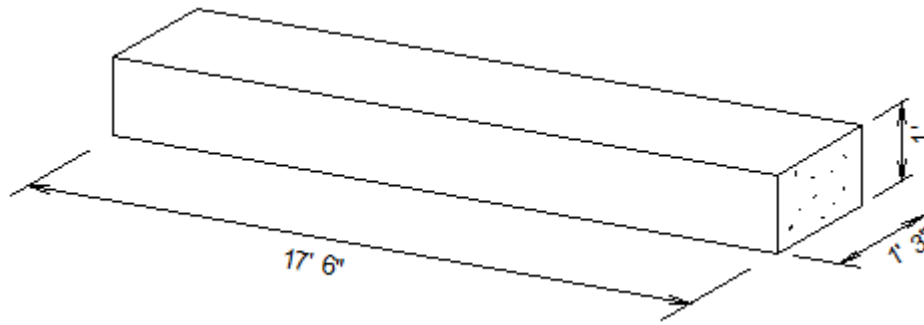
1) Set Units of Measure
Input Units: Default
Convert Units: cu ft (cubic feet)
Decimal Places: 1 Decimal Places

2) Enter Calculation
length = 17' 6"
width = 1' 3"
depth = 1'
length*width*depth   *' Volume*

3) Click Run/Calculate