

USING FORMULAS IN GROUNDPLAN

Supported References

Formulas for Parts within a Measurement include related Supported References. These References vary according to the Measurement type [Count vs Length vs Area]. Each Formula must contain a Supported Reference/s to be accepted.

Support References can be used in conjunction with Excel-type Formulas to calculate Parts and/or Labour for a Measurement.

Notes:

- All formulas must start with the equal sign [=] and include one of the supported references associated with the Measurement.
- Either whole or decimal numbers can be used.
- Groundplan works in metres [feet for imperial customers].
- Parts and Labour may follow our Grouping rules although Formula is not included within the rules.

Groundplan Formulas follow the PMDAS Rule.

ie: Parentheses [brackets] followed by multiplication, division, addition then subtraction.

Calculations within brackets are prioritised. The Totals after any Formula applied to a Part will be displayed in the bill of materials under the Quantities tab.

TERM	EXPLAINED
+	Addition
-	Subtract or create a negative total
*	Multiply [SHIFT+8 to create a *]
/	Divide
ceil(x)	Rounds the total [x] and/or Formula inside the brackets up to the nearest whole number.
floor(x)	Rounds the total [x] and/or Formula inside the brackets down to the nearest whole number.
Unit of Measure	Displayed on the bill of materials and represents the Part being quantified. Some examples include ea, bags, sheets, rods, pipes, m, m2, m3. <i>[Supported references will not reference this UOM for calculations].</i>

USING FORMULAS IN GROUNDPLAN

Supported References for Count Measurements

Add Once-Off Item

Part No

Description

Unit of Measure

Unit Cost

Markup %

Unit Price

Formula

= count

Supported References: count

Total 0.00

Save Close

Add Once-Off Item

Part No

Description

Unit of Measure

Unit Cost

Markup %

Unit Price

Formula

= -count

Supported References: count

Total -2.00 ea

Save Close

Explanation: To create a negative Count when removing an item.

FORMULA	EXPLAINED	*UOM
=count*8	For every Count, multiply the item by 8m	m
=count*5/100	For every Count, allow 5 items divided by 100 (or amount in a bag)	bags
= - count	Create a negative Count	ea

*UOM - Unit of Measure

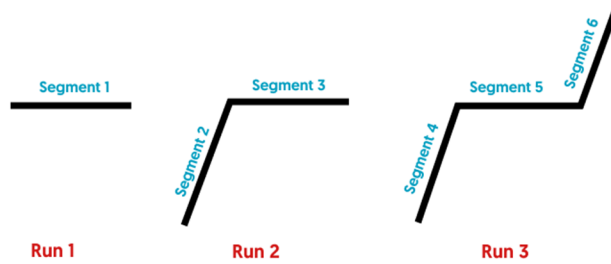
USING FORMULAS IN GROUNDPLAN

Supported References for Length Measurements

len = Total overall Length

count = 3 Runs

segments = 6 clicks to change direction



Add Once-Off Item

Part No

Description: Ply BD sheeting

Unit of Measure: sheets

Unit Cost

Markup %: 10.00

Unit Price

Formula: = ceil(len*2.4/2.88)

Supported References: len, count, segments

Total: 6.00 sheets

Save Close

Explanation: Total length multiplied by the height and divided by the area of a sheet rounded up to the next whole number (ceil)

FORMULA	EXPLAINED	*UOM
=len/6	Total length divided by 6, (counting one length every 6 metres)	lengths
=len*2.4	Total length multiplied by height	m ²
=ceil(len*2)	Total length multiplied by 2 and rounded up to the next whole number (ceil)	m
=segments*2	Each time clicked to change direction multiplied by 2 items along each segment	ea
=len+count*5	Total length add an additional 5m for each run	m
=ceil(len*2.4/2.88)	Total length multiplied by the height and divided by the area covered by a product rounded up to the next whole number (ceil)	sheets
=(len/1.5)+count*2	Total length divided by how often a post is (1.5m) add for each run 2 extra posts (for each end)	posts

*UOM - Unit of Measure

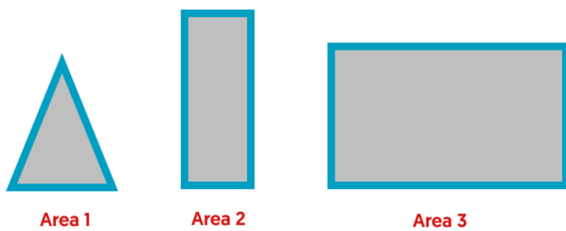
USING FORMULAS IN GROUNDPLAN

Supported References for Area Measurements

count = 3 areas

len = perimeter around the areas including cut outs

area = Total overall Area m2



Edit Once-Off Item

Part No

Description

Soil removal

Unit of Measure

m3

Unit Cost

Markup %

10.00

Unit Price

Formula

= area*1.5

Supported References:

count len area

Total

12.49 m3

Save

Close

Explanation: Area multiplied by height OR depth.

FORMULA	EXPLAINED	*UOM
=area*1.5	Area multiplied by height OR depth	m ³
=len	Perimeter of the area	m
=ceil(len/6)	Perimeter of the area (including any cut outs) divided by 6m lengths rounded up to the next whole number	lengths
=area+(len*0.2)	Area added to (perimeter multiplied by 200mm high)	m ²
=area/7.2	Total area divided by the area of a sheet / product (7.2 m ²)	sheets
=area*4/100	In each m ² there are 4 items required divided by the amount in a bag	bag
=count	Each area created	ea

*UOM - Unit of Measure



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