Formula

Objective

There are two objectives with this feature.

1) The ability to run a mini calculator in Priority and use the result.
2) The ability to record what the calculation was that ended up with the result

Method

Add 2 new fields to the required form by using:

System Management > System Maintenance > Advanced Design > Advanced Form Design > Add Formula & Result To Form

Use the field "Formula" as a calculator. A wide range of operands can be used over and above the basic ones. The calculator adheres to mathematical rules like parentheses before other operands, multiplication before addition, etc. It supports trigonometry functions and more.

To review the full list of functionalities see https://mathnotepad.com/docs/functions.html

Example

Pyramid bricks

How many bricks are required to build a pyramid?

Base: 10 m X 10 m

Hight: 10 m

Brick size: 20cm X 10cm

Formula	Result
round((10 * 10 * 10 / 3) / (0.2 * 0.1))	16,667.00

Number of bricks = round((10 * 10 * 10 / 3) / (0.2 * 0.1)) = 16,666.00

Concrete bollard

How many litres of concrete required for a 1m diameter sphere?

Litre = 0.1m X 0.1m X 0.1m = 0.001 cubic metre

Radius = Diameter / 2

Volume of sphere: $4/3 * \pi * R^3$

$4/3 * \pi * \frac{1}{2}^3$ / L = 523.60

Formula	Result
4/3 * pi * (1/2) ^ 3 / (0.1 * 0.1 * 0.1)	523.60

Concrete bollard