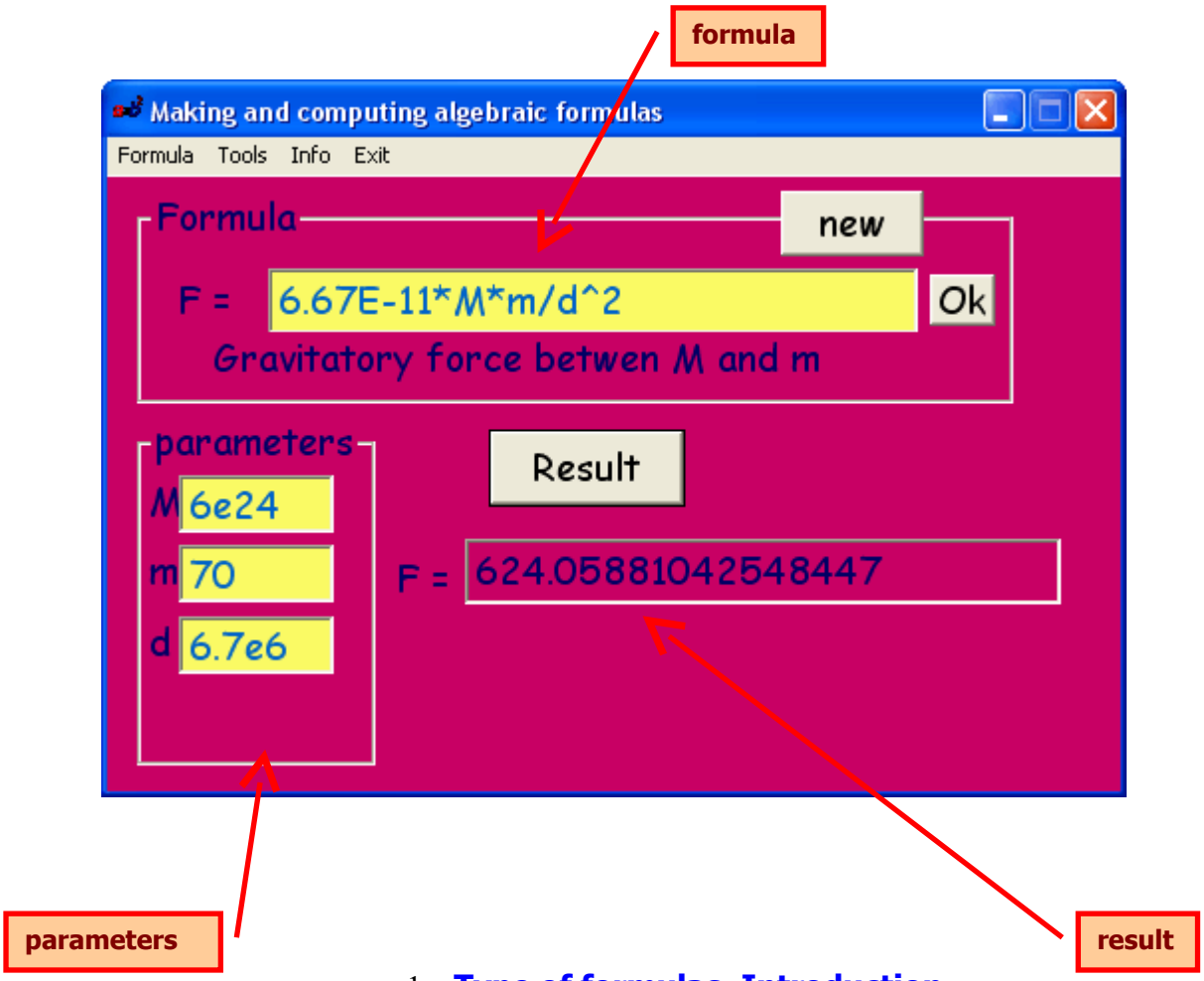
FormAlg

Edition and calculation of user's formulas



Types of formulas. Introduction

Possible formulas. Elements

Formulas or algebraic expressions can be introduced, with or without parameters (up to 4), and with the following ***operators*** *(and in the format that is shown):*

Operation	**symbol**	example	*That is….*
Addition, substraction	**+ , -**	**a+5**	*a+5*
Product	*	**2*x**	*2x*
Division	/	**(x+1)/(x-1)**	*(x+1)/(x-1)*
Potentiation	^	**b^2**	b^2
Factorial	!	**n!**	*n!*

Priority *of the operators (in descendent values)* **!** **^** [**/ , ***] [**+ , -**]

examples:

3^3! = 3^6 =729

3*5^2 = 3* 25 = 75

7+2*3^2 = 7 + 2^9 = 7 + 512 = 519

In the event of tie, the priority is from left to right:

16/4/2 = 4/2 = 2 (No: 16/2 = 8)

Priority can be modified by means of parenthesis

(3^3)! = 9! = 362880

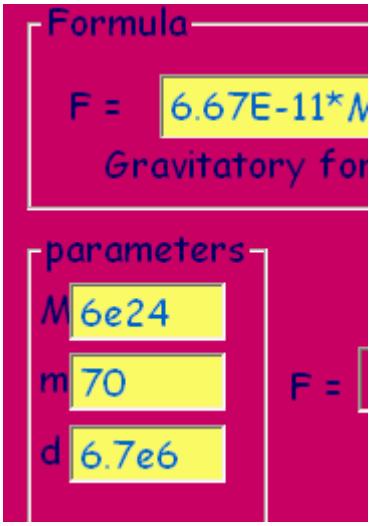
(3*5)^2 = 15^2 = 225

((7+2)*3)^2 = $(9*3)^2$ = 27^2 = 729

Functions (as sin(x), Ln(x), etc) cannot be introduced

Parameters (or variables)

Formulas can contain from 0 until 4 parameters or variables that should be simple letters (they cannot be chains of more than one character)



When you accept the expression (button [Ok] or key [Return]) if it contains parameters they will spread the stalls to introduce their values… If not, the result will be shown immediately

Examples of correct expressions:

“Double” formulas

Two formulas can be introduced separated by a sign of equality (=)

This may be useful, for example, to confirm solutions of equations

example:

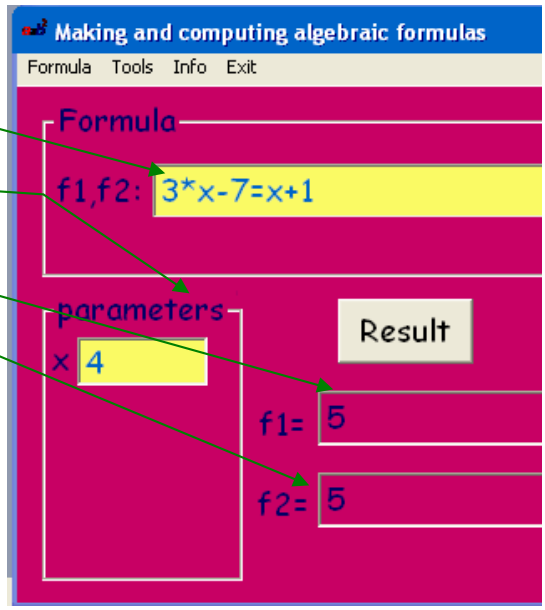
Let us suppose that we have solved the equation **3x-7 = x+1**, and the value **4** has come out as solution

If we want to check the correction of the solution with this utility we will introduce:

- the equation in the stall of the formula,
- the solution to check in that of parameters

And the values of the 2 expressions, for this parameter, will appear in the stalls of the result

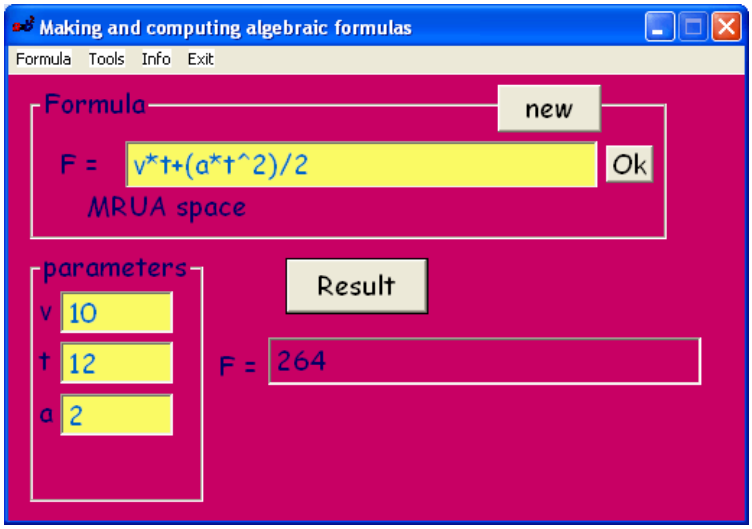
If these values coincide, the solution will be correct.



Obtaining the results

When we have set a formula we can obtainr…

Simple results , *for each group of parameters that we introduce:*



or….

Charts of values