

Use of “mhequ.sty” (v1.6.1)

A simple labelled equation:

$$\sum_{i=1}^5 X_i^j X_i^j = y^j . \quad (1)$$

Removing or adding the label does not require a change of environment:

$$\sum_{i=1}^5 X_i^j X_i^j = y^j .$$

A simple list of equations can be displayed either with one number per equation

$$f(x) = \sin(x) + 1 , \quad (2)$$

$$h(x) = f(x) + g(x) - 3 , \quad (3)$$

or with one number for the whole list

$$f(x) = \sin(x) + 1 , \quad (4)$$

$$h(x) = f(x) + g(x) - 3 ,$$

using only a very small modification in the syntax. Of course, it can also have no number at all:

$$f(x) = \sin(x) + 1 ,$$

$$h(x) = f(x) + g(x) - 3 .$$

Let us make a first group:

$$f(x) = \sin(x) + 1 , \quad (5a)$$

$$g(x) = \cos(x) - x^2 + 4 , \quad (5b)$$

$$h(x) = f(x) + g(x) - 3 . \quad (5c)$$

You can refer to the whole block (5) or to one line, like (5a) for example. You can use any tag you like with the `\tag` command

$$x = y . \quad (\star)$$

Of course, you can also refer to it as usual: (\star) . You can mix `mhequ` with the usual `equation` environment. (But why would you?)

$$x = y + z \quad (6)$$

If you want to typeset several columns of equations, it is quite easy:

$$x = y + z \quad a = b + c \quad x = v \quad (7)$$

$$x = y + z \quad a = b + c \quad x = u + 1 \quad (7')$$

$$\text{(multicol)} \quad x = y$$

$$a = b \quad \text{(multicol)}$$

$$x = y + z \quad a^2 = (b - c)^3 + y$$

and also (this is some `\intertext`)

$$x = y + z \quad a = (b + c)^2 - 5 \quad \ell = m \quad (8)$$

You can even extend the block (5) much later like

$$x = y + z \quad x = y + z \quad f(x) = b \quad (5d)$$

$$x = y + z \quad x = y + z \quad g(x) = b \quad (5e)$$

$$\sin^2 x + \cos^2 x = 1 \quad (5f)$$

You can also change the type of the subnumbering and use the `\text` command without having to load `amstext`. Like for example

$$I_1 = \int_a^b g(x) dx , \quad (\text{First equation}) \quad (9A)$$

$$I_2 = \int_a^b g(x^2 - 1) dx . \quad (\text{Second equation}) \quad (9B)$$