

1 Prime equation numbers

First an equation.

$$A=B \tag{1}$$

That was equation (?).

Then the same, with a prime on the number. `ifundefinedr@check 1=0firstoftwo@check *****`

$$?' C=D \tag{2}$$

And that was equation (?).

Notice, by the way, that when a `\ref` occurs inside a `\tag`, and that `\tag` is then `\labeljd`, a `\ref` for the the second `\label` requires *three* runs of L^AT_EX in order to get the proper value. (If you run through the logic of L^AT_EX's cross-referencing mechanisms as they apply in this case, you will see that this is necessary.)

2 Subnumbered equations

Here is a,b,c sub-numbering.

```
[Sorry. Ignored \beginsubequations ... \endsubequations]
```

That was produced with the `eqnarray` environment; the middle line was labeled as (?).

An equation following the end of the `subequations` environment should revert to normal numbering:

$$H<K \tag{3}$$

A check on the labeling: that was equation (?).

The sub-numbered equations can be spread out through the text, like this:

```
[Sorry. Ignored \beginsubequations ... \endsubequations]
```

Label check: the middle one was (?)

A final equation for a numbering check.

$$G=H \tag{4}$$

That equation was labeled as (?).

3 Tests of align, gather, and other AMS-L^AT_EX environments

The align environment:

```
[Sorry. Ignored \beginsubequations ... \endsubequations]
```

Label check: that was (?), (?), and (?).

The align environment again:

```
[Sorry. Ignored \beginsubequations ... \endsubequations]
```

Label check: that was (?), (?), and (?).

The gather environment. For the third line we refer to one of the numbers in the first align structure.

```
[Sorry. Ignored \beginsubequations ... \endsubequations]
```

Label check: that was (?), (?), and (?).

The next `subequations` environment encompasses two separate equations. A split environment:

```
[Sorry. Ignored \beginsubequations ... \endsubequations]
```

Label check: That was (?) and (?).