This document demonstrates the usage of two different formula categories. One is Arabic, one is Roman numbered.

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

$$A = C \tag{2}$$

$$A = D \tag{i}$$

$$A = E \tag{ii}$$

$$A = F \tag{3}$$

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

$$A = H \tag{iii}$$

$$A = I \tag{iv}$$

Cross-references: (1) , (2) , (3) , (4) , (i) , (ii) , (iii) , (iv)

To create this example, first a counter must be defined for the Roman numbered formulas. To do this the following is inserted to the LaTeX-preamble:

```
\newcounter{rom}
\renewcommand{\therom}{\roman{rom}}
```

To save the value of the Arabic counter **equation**, this is added to the preamble

\newcommand{\c@org@eq}{}
\let\c@org@eq\c@equation
\newcommand{\org@theeq}{}
\let\org@theeq\theequation

To be able to switch in the document between the two numbering schemes, the following commands are defined in the preamble:

\newcommand{\setrom}{\let\c@equation\c@rom\let\theequation\therom}

for Roman numbering and

\newcommand{\setarab}{\let\c@equation\c@org@eq\let\theequation\org@theeq}

for Arabic numbering.

Every formula will be by default numbered Arabic. To switch to Roman numbering, the command **\setrom** is inserted in TEX-mode. With the command **\setarab** the numbering is switched to Arabic.