## RULE VII - NUMBERS AND ROMAN NUMERALS

28. Cardinal Numbers: Numbers are expressed by the letters "a" through " j " preceded by the number sign.
a. The effect of the number sign is not terminated by commas, colons, hyphens, fraction signs, and decimals. However, after a space or a dash, the number sign must be repeated.
(Note: In writing sports scores, results of votes, etc., a hyphen should be used to separate the numbers.) Ex:


The year 1959-1959 being...


The bill passed 403-13. or The bill passed 403-13.
b. Although numbers joined by the hyphen do not require the second number sign, if the number is divided at the end of the line after the hyphen, the number sign should be repeated at the beginning of the following line. Where necessary, an integral number may be divided after a comma, but the number sign should not be repeated at the beginning of the following line.
(Note: The division of integral numbers between lines should be avoided unless considerable space can be saved.) Ex:


## c. Simple Fractions:

(1) The sign $\because!$ represents the fraction-line, and is used to separate the numerator from the denominator. Ex:

(2) (11-95) Regardless of sequence, when two fractions, or a fraction and a whole number, are connected by a hyphen or a dash, the number sign must be repeated after the hyphen or the dash. Ex:


## d. Mixed Numbers:

(1) In a mixed number, the fraction is joined to the whole number by a hyphen, and the number sign is not repeated before the fraction. The fraction may not be carried over to the beginning of a new line. When a mixed number is printed with a space between the whole number and the fraction, in braille a hyphen is substituted for the space. Ex:
21/2 : : : : : : : : : : :
(2) (11-95) Regardless of sequence, when two mixed numbers, a mixed number and a whole number, or a mixed number and a simple fraction, are connected by a hyphen or a dash, the number sign must be repeated after the connecting hyphen or dash. Ex:

e. Oblique Stroke: The sign $!!$ represents the oblique stroke, bar, or slash, and is used whenever the symbol it represents appears in print, except when it is used in the writing of dates (see §27.e.). When an oblique stroke occurs between numbers other than fractions, the number sign should be repeated before the second number. Similarly, when an oblique stroke occurs between capitalized abbreviations, the capital sign should be repeated. When an oblique stroke occurs between words and the words must be divided between lines, the hyphen should be inserted following the oblique stroke. Ex:


## f. Decimals:

(1) The sign $\because$ represents the decimal point and is placed between the number sign and the numbers of a decimal fraction. When a decimal fraction is joined to a whole number to form a decimal mixed number, the number sign is placed only before the whole number. Ex:

(2) (11-95) Regardless of sequence, when two decimal fractions, a decimal fraction and a whole number, a decimal mixed number and a decimal fraction, or a whole number and a decimal mixed number, are connected by a hyphen or a dash, the number sign must be repeated after the hyphen or the dash. Ex:

g. Decimal Coinage: The sign $\because:$ represents the $\$$ and is placed before the number sign to indicate dollars. When writing dollars and cents, the decimal sign $\quad \therefore$ is used to separate the cents from the dollars. Neither the dollar sign nor the number sign should be repeated after the decimal sign. Ex:

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$8.75
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$15.221/2 
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h. In expressing a definite point of time, regardless of how it is expressed in print, the colon should always be used in braille to separate the hours, minutes, and seconds, and the number sign should not be repeated. Ex:

i. Intervals of time are shown in braille as follows:

6-7 a.m. (the number sign is not repeated, as both figures refer to hours)


6:15-7:45 or 6.15-7.45 (the number sign must be repeated after the hyphen, as minutes are followed by hours)

j. In general literature, the common mathematical signs of operation for + (plus), — (minus), $\times$ (times or by), $\div$ (divided by), and $=$ (equals) should always be expressed in words. The special mathematical signs should be used only in mathematics and scientific texts. Ex:

29. Ordinal Numbers are formed by adding the ordinal endings "st," "nd," "rd," and "th" to the cardinal numbers, and the contractions for "st" and "th" should be used. Ex:


Exception: When the second and third ordinal numbers are represented in print by the number followed by the letter " d " only, the letters " n " or " r " respectively should be inserted in braille. Ex:

In writing ordinal numbers with foreign endings, the endings should be preceded by the letter sign, and contractions should not be used. Ex:

30. Roman Numerals: When Roman numerals are written as capital letters, a single capital sign should be used before a single letter, and a double capital sign should be used before numerals containing two or more letters. Uncapitalized Roman numerals of one or more letters should be preceded by the letter sign. Ex:

a. When Roman numerals are connected by a hyphen or a dash, the appropriate capital sign, double capital sign, or letter sign must be repeated after the hyphen or the dash. Ex:
b. The letter sign should be placed before any letter, letters, or ordinal ending added to a Roman numeral, and contractions should be used only in English ordinals. Ex:

c. Following are the braille symbols for certain rare Roman numerals. (A Transcriber's Note should be inserted giving the meaning of these symbols whenever they first appear.) Ex:

| I | (500) |  | i | (500) | $:!$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| X | $(10,000)$ | $: 0: 0$ | x | $(10,000)$ | $:: 0 \bullet$ |
| C | $(100,000)$ |  | c | $(100,000)$ | $:: 0:$ |
| M | $(1,000,000)$ | $:: 0 \bullet$ | m | $(1,000,000)$ | $:::$ |

