## Lesson 3

## Cardinal Numbers

### 3.1 In General [VII.28]

There are no special braille symbols for cardinal numbers. Instead, the numbers 1 through 0 are expressed by the letters $a$ through $j$ preceded by the number sign (dots 3-4-5-6). The number sign, like the capital sign, is a special braille composition sign. Examples:

3.1a The effect of the number sign. The effect of the number sign is not terminated by intervening commas, colons, or hyphens (or fraction lines or decimal points, which will be studied later). Examples:


A space or a mark of punctuation other than a comma, colon, or hyphen will terminate the effect of the number sign. Therefore, if a space or such punctuation falls in the middle of a number, the number sign must be repeated. Examples:

$$
1800 \text { 534-8765 }
$$



We eat at 8:00-8:30 is too late.

3.1b Dividing hyphenated and long numbers between lines. Numbers that are joined by a hyphen and appear together on one line do not require a second number sign before the second number. If, however, the hyphen joining two numbers falls at the end of the braille line, the number sign must be repeated at the beginning of the following line. Examples:


1990-
96


- Note: Because number-word combinations are common in print (6-pack, 7-Up), repeating the number sign in a hyphenated number that is divided between lines makes it clear to the reader that it is a number that continues and not a word. If the number sign had not been repeated at the beginning of the next line, 1990-96 could be confused with 1990-if.

Long numbers may be divided between lines only following a comma-and when at least four digits of the number remain on the first line. Numbers without commas or of six digits or fewer should not be divided between braille lines. Because the comma and hyphen signal that the number is continuing, a second number sign is not necessary and should not be used before the continuation of a long number on the following line. Example:

7,350,500,000

3.1c The print number symbol (\#) and abbreviation (No.). The number sign is a braille composition sign and as such is not the equivalent of any print symbol or abbreviation. Therefore, it cannot be used to represent the word number, the print number symbol (\#), or the abbreviation No.

The number symbol (\#) is represented in braille by the abbreviation No. followed by the braille number sign and the corresponding braille number, spaced as in print.
[VIII.31.b.(1)] Example:

The word number or the print abbreviation No. should also follow print spacing. Example:


Usually literary braille does not make a distinction between the print number symbol and the abbreviation. Situations that require such a distinction will be studied in Lesson 13.
3.1d Numbers with apostrophes. [I.4.a] When a print number is preceded by an apostrophe, the apostrophe represents a missing number, so in braille the number sign is placed before the apostrophe. Example:
'59


In plural numbers, the apostrophe should be inserted in braille before the $s$ even though it has been omitted in print. Examples:

gay '90's

3.1e Inclusive numbers. In braille an unspaced hyphen is substituted for a dash or a hyphen when print uses such punctuation to connect continuing or inclusive numbers. Example:
1970-1980 [or] 1970-1980 [or] 1970-1980

It is sometimes difficult to tell the difference between a print short dash (an en dash), a regular dash (an em dash), and a hyphen. A good rule of thumb is, if the words "to" or "through" can be substituted for the punctuation used between print numbers, scores, votes, etc., then a hyphen should be used in braille. Examples:

Mayor Is Victor: 1,258-895


Rams won 14-7. $\quad$ : : : : : : : : : : : : : : : : : : : : : : : :
See pages 28-64.
If, however, a dash comes between numbers but its purpose is to separate independent clauses, as in We eat at 8:00-8:30 is too late, in braille the dash must be retained and the number sign repeated before the second number.

No space is left in braille between the hyphen and the closing parenthesis when a missing number is represented in print as a space. Example:

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Susan Naidu (1966- )
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## Drill 8

Practice brailling the following sentences. In this, and all future drills, treat each sentence as a paragraph. Be sure to include the number and its period at the beginning of each paragraph. Leave one empty cell between the period and the beginning of the sentence.

Numbers in a printed listing are usually arranged so that the periods are in alignment. This is not so in braille. In braille, the number sign is placed in cell 3 , followed immediately by the number-regardless of the number of digits in the number.

1. Tell Tracy: 66 rods equal 1,089 feet.
2. Megan's project requires a look at 1910-14 records.
3. Miss Brooks directs briskly: "Add six 7s, Class."
4. He possesses classic automobiles—a '57 Cadillac, a '64 Dodge, a '69 Buick.
5. Eat a snack at 10:30.
6. Copy all dates on a new page: 1560-65, 1875-81, 1878?-1904, 987-1022.
7. Francis Coppola (1939- )
8. Locate catalog \#58-9403 on page 95.
9. Look at page 59-60, too.
10. Dial 1800 468-4581.
11. Sunrays promote life-93,000,000 miles away.
12. Attorney Beckal-Mayes cites law No. 19:43(2).

## Reading Practice

Read the following sentences and write them out in longhand. Compare your work with the print version in Appendix A.


## EXERCISE

Prepare the following exercise for submission to the instructor. Number the sentences as you did in Drill 8. The first line of each page should have the centered heading LESSON 3 in full capital letters, and a page number. Place the page number (without a period) at the extreme righthand margin-do not include the word "page." A blank line should follow the heading on the first page only. (Correspondence students: Add your name and address in braille and print at the end of each exercise-or on a separate page, if necessary.)

## LESSON 3

1. Tony saw big-volume 1995-96 auto sales.
2. Cuba [see map on page 153] has a sunny climate.
3. Diaz (1450?-1500) made Portugal supreme at sea.
4. Only a few select books get a critic's approval. [See book reviews, Feb. 15 issue, "Detroit Daily News."]
5. Did Nick get on a No. 40 or a No. 42 bus?
6. Mr. Fitzpatrick collects textbooks; he has 200 on meteorology, 200 on Greek philosophy, 50 on music, 39 on sociology, 26 on botany, 43 on physiology.
7. An isosceles triangle [see page 206] is a geometric figure.
8. My TV (a ' 97 Magnavox) set me back 500 bucks.
9. 1998-99 academic progress at Fox Valley College surpasses all prior records.
10. Mom's catalog has a skirt I want (catalog \#595).
11. My new pale-blue dress is size 18; once 16s fit me nicely.
12. "Excuse me," Hank corrects, "my total is $2,365,023$ tons."
13. Pick me up at 10:00-10:00 promptly.
14. George Gordon Byron (1788-1824) wrote lovely poems.
15. Bridget O'Toole, at 75 , is a wise woman.
16. A GLOBE-DEMOCRAT full-page ad describes a model home at 8008 Sunset Drive.
17. On May 25, 1,436 cadets graduate.
18. At 6:50 a bell tolls sadly.
19. Tony Foyt (1935-) won 1967 Le Mans race.
20. At 3:15 Paul takes hockey lessons at Brian Tovall's Ice Palace.
21. Ralph, let Dr. McPhee see prototype model No. 65(3).
22. On July 1-3, Gettysburg has a mock battle.
23. Call Morris at 6082378531.
24. Grampa is 70 ; Mom is 44 ; Dad is 46 ; Adam is 17 .
25. Riley, James (poet), 1849-1916.
26. Rebels total approximately $3,500,000$.
27. "Colts won 27-16-hooray!"
28. Let's eat at McMurry's Express Cafe, 1743 Old Salem Way.
29. $18,000,079$ plus 6,956 plus 3,721 equals $\qquad$ .
30. Look at TRIBUNE (Columbia [Ohio], May 6, 1997).
31. My synagogue is at 169 Avondale Circle.
