# NUMBERS AND FORMULAS

## **WORDS OR DIGITS**

# Why Words and Digits?

- Many drafters use both words and digits when stating a number, placing the digits in parentheses: six (6); five thousand dollars (\$5,000); eighteen percent (18%); and so forth. This practice might have arisen because drafters noted that numbers expressed in digits are easier to read than numbers expressed in words but are more vulnerable to errors than are numbers expressed in words. Such glitches do happen. For example, in a mortgage prepared in New York in 1986, the principal amount was erroneously stated as \$92,885 rather than \$92,885,000. The result was "a spate of litigation, hundreds of thousands of dollars in legal fees, millions of dollars in damages and an untold fortune in embarrassment." David Margolick, At the Bar; How Three Missing Zeros Brought Red Faces and Cost Millions of Dollars, N.Y. Times, 4 Oct. 1991.
- In theory, combining both usages affords the immediacy of digits while providing insurance against a transposed or missing decimal point or one or more extra, missing, or incorrect digits. This insurance is reinforced by the judicial principle of interpretation that a number expressed in words controls in the case of conflict.
- For example, the license agreement at issue in *Fetch Interactive Television LLC v. Touchstream Techs. Inc.*, No. CV 2017-0637-SG, 2019 WL 193921, at \*4 (Del. Ch. 15 Jan. 2019), said "[FetchIT] shall cure such default within fifteen (30) days or immediately if deemed to be incurable." The court adopted the principle of interpretation that the written number controls, "it being less likely that a drafting error will occur in a written expression than a numeric one." The court noted that Delaware has adopted this principle in its Commercial Code, which says "If an instrument contains contradictory terms, typewritten terms prevail over printed terms, handwritten terms prevail over both, and words prevail over numbers." Del. Code Ann. tit. 6, § 3-114 (West).
- 14.4 The words-and-digits approach has presumably saved the occasional contract party (and its lawyer) from the adverse consequences of a missing decimal point or other error involving digits, or it would have done had it been used.

#### **Problems**

#### **GENERALLY**

- But those benefits come at a prohibitive cost. It's tedious for the reader to encounter, at every turn, numbers expressed in both words and digits. And this belt-and-suspenders approach is faintly ludicrous when applied to all numbers throughout a contract, even though lower numbers are less susceptible than are higher numbers to a significant typographical error that goes undetected. For use of words and digits in, for example, three (3) members of the board of directors to be of any benefit, those drafting and reviewing the contract would have to be particularly inattentive.
- And using both words and digits violates a cardinal rule of drafting—that you shouldn't say the same thing twice in a contract, because it introduces a potential source of inconsistency (see 1.56). Even if when you first state a words-and-digits number the words and digits are consistent, they might become inconsistent as a draft is revised. It's easy to see how that can happen—digits are more eye-catching than words, so you might change the digits but forget to change the words.
- 14.7 Because it's more likely that any inconsistency is due to changing digits and forgetting to change the words, rather than vice versa, applying the principle of interpretation that words govern might result in a court choosing a meaning that's contrary to what the drafter had intended.
- Instead, the principle of interpretation makes sense only if a words-and-digits number features, for example, digits with a number of zeros that is inconsistent with the word version of the number, or digits with a decimal point in a place that is inconsistent with the word version of the number. In such instances, it's more likely that the inconsistency is due to a digit glitch as opposed to a complete mismatch between words and digits.
- And using words and digits interferes with other usages in two minor but annoying ways. First, normally you would use a hyphen when a number is part of a phrasal adjective, as in *successive five-year periods*. If you use words and digits, retaining the hyphen would look decidedly odd: *successive five* (5)-year periods. The better choice would be to dispense with the hyphen, as in *successive five* (5) year periods, but that would still be less than ideal.
- 14.10 And when the words-and-digits approach is used in a block of text that includes integrated enumerated clauses, that can result in the reader mistakenly thinking, if only for a moment, that a single-digit in parentheses signals the presence of an enumerated clause.
- **14.11** So using words and digits is more of a problem than the issue it was intended to fix—digit mistakes.

### STATING BIG NUMBERS

14.12 It might seem that using words and digits for the one big number in, for example, loan documentation would be less annoying than using words and digits for all numbers in a contract. But if anything, big numbers are more prone to words-and-digits inconsistency than are smaller numbers,

- because the longer the words component, the less likely you are to read it. And the consequences can be particularly unfortunate.
- 14.13 Charles R. Tips Family Trust v. PB Commercial LLC, 459 S.W.3d 147 (Tex. App. 2015), involved a dispute over a loan agreement and guarantee in which the principal amount was stated as "ONE MILLION SEVEN THOUSAND AND NO/100 (\$1,700,000.00) DOLLARS." So the amount stated in words was \$693,000 less than the amount stated in digits.
- 14.14 The Texas Court of Appeals held that the words prevailed over the digits the principal amount of the loan was \$1,007,000.00. By itself, that should come as no surprise, because courts generally accept the rule of interpretation that words prevail over digits. And the Uniform Commercial Code as enacted in Texas says that "[i]f an instrument contains contradictory terms, typewritten terms prevail over printed terms, handwritten terms prevail over both, and words prevail over numbers." But more disconcertingly, the court also refused to consider parol evidence that the borrowers received \$1.7 million from the lender.

# **Using First Words, Then Digits**

- So instead of using words and digits, use words for whole numbers one 14.15 through ten and use digits for numbers 11 and above. Garner's Modern English Usage, at 762, also recommends that approach, whereas The Chicago Manual of Style, at 9.2, recommends using words for whole numbers through 100. Because contract prose is relatively numbers-heavy, this manual recommends an earlier transition.
- The words-to-digits approach applies to ordinal numbers (seventh, 22nd) as 14.16 well as cardinal numbers. There are exceptions: use digits for whole numbers below 11 in lists of numbers; when numbers occur frequently in the text; in percentages; and in statements of amounts of money (see 13.544) and times of day. And use words for numbers 11 and over at the beginning of sentences. But which system you use is less important than ensuring that you don't distract the reader by being inconsistent.
- 14.17 Use just digits for the big number in a contract, although it can be appropriate to use a mix of words and digits to express very large amounts of money (see 13.549).
- 14.18 Using only digits does leave one prone to digit errors. The best fix for that? Proofreading.

## **Using Only Digits for All Numbers**

- 14.19 In Numbers: Figures or Words: A Convention Under the Spotlight, 50 Clarity 32 (Nov. 2003), the Australian legal-writing commentator Robert Eagleson argues that in legal documents, all numbers should use digits, and he says that "the convention that certain numbers must occur as words has a strong streak of irrationality about it."
- 14.20 This manual doesn't recommend adopting Eagleson's approach. Because in everyday English the practice is to start with words then transition to

digits (see 14.15), using digits for the lower numbers too is redolent of prose used in numbers-heavy fields. It can seem intrusive, as in We ordered only 1 pizza.

14.21 It would be more efficient to use only digits to state numbers in contracts. And arguably, contract prose is sufficiently numbers-heavy to justify using only digits. But instead of asking drafters to abandon an entrenched and relatively harmless general-writing usage, this manual prefers to focus on change with greater implications. But you can elect to make this change yourselves.

## **FORMULAS**

14.22 Contracts often include provisions that address how to calculate, postsigning, a given quantum, such as an interest rate, the number of surplus shares an investor may purchase, or the amount by which the exercise price of an option should be adjusted. Formulas can be expressed in ordinary contract prose or with mathematical equations.

## **Using Prose**

#### SIMPLE FORMULAS

- 14.23 At their simplest, contract formulas involve only one kind of calculation, as in Acme shall pay Widgetco an amount equal to X [plus] [minus] [multiplied by] [divided by] Y. (Don't use a comma before plus, minus, multiplied by, or divided by. And when calculating an amount of money, insert the phrase an amount equal to before the calculation to reflect that money is fungible.) With such simple formulas, concision favors omitting any extra phrases referring to the end product of calculation, as in an amount equal to the sum of X plus Y and an amount equal to the excess of X over [insert X minus] Y. Such phrases have their uses in other contexts (see 14.29, 14.31, and 14.37).
- 14.24 A quantum can also be expressed as a percentage of an amount, as in an amount equal to 5% of the Overdue Amount.

### SPECIFYING THE ORDER OF OPERATIONS

14.25 With formulas involving only addition or only multiplication, don't be concerned about the order in which to perform the operations. For example, the result of the calculation 2 + 3 + 4 isn't affected by the order in which the numbers are added. This isn't the case when, for example, a formula combines addition and multiplication. The calculation  $2 \times 3 + 4$ gives two different results, 10 or 14, depending on which operation you perform first. (Confusion regarding the order of operations is a specialized form of ambiguity and is analogous to the "squinting modifier"; see 12.19.)