

Investigation:

HONEST NUMBER HUNT

An *honest number* in a language is a number whose meaning is the same as the number of letters in the word for the number.

In English, “four” represents as many objects as there are letters in the word four. In fact, four is the only honest number in English. In Spanish, “cinco” represents as many objects (5) as there are letters in the word cinco. Cinco is an honest number in Spanish.

1. Undertake an extensive search for honest numbers in as many languages as possible. Prepare a chart with your class that displays the honest numbers found. Do all the languages you examined have at least one honest number?
2. Honest numbers in a language have an interesting property as the following example illustrates.

EXAMPLE

Choose a number.	2020
Write its number word.	two thousand twenty
Count and record the number of letters.	17
Write the number word for 17.	seventeen
Count and record the number of letters.	9
Write the number word for 9.	nine
Count and record the number of letters.	4
Write the number word for 4.	four
If you continue, 4 and <i>four</i> keep repeating.	

This number trail has four numbers and ends in the honest number 4.

2020 → 17 → 9 → 4

- a. Using the English language, apply this process to other numbers. Summarize your findings.
- b. Choose another language in which you know how to count and which has an honest number. Apply the process described in the example to several numbers in this language. In a paragraph or two, summarize your findings for a class report.