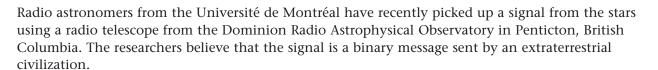




## Decoding an Extraterrestrial Message



| How many zeroes are in the message?   | 22                    |  |
|---|-----------------------|--|
| • How many ones are in the message? _   | 13                    |  |
| • How many bits of information in total (A bit of information is a zero or a one.)    | are in the message?35 |  |
| • Which two prime numbers (other than 1) can you divide this total number of bits by? |                       |  |
|   | 5 and 7               |  |

To understand the message, astronomers suggest transposing the zeroes and ones onto a grid with the number of rows and columns matching the two prime numbers you've identified in the question above. Darken the squares representing a one and leave blank the squares representing a zero.

**Hint:** Fill in the squares beginning with the top left corner of the grid and continue to the end of the first row. Then jump to the next row and do the same. To avoid errors, check off each bit in the message as you transpose it onto your grid.

