

This question involves methods that distribute text across lines of an electronic sign. The electronic sign and the text to be displayed on it are represented by the `Sign` class. You will write the complete `Sign` class, which contains a constructor and two methods.

The `Sign` class constructor has two parameters. The first parameter is a `String` that contains the message to be displayed on the sign. The second parameter is an `int` that contains the *width* of each line of the sign. The width is the positive maximum number of characters that can be displayed on a single line of the sign.

A sign contains as many lines as are necessary to display the entire message. The message is split among the lines of the sign without regard to spaces or punctuation. Only the last line of the sign may contain fewer characters than the width indicated by the constructor parameter.

The following are examples of a message displayed on signs of different widths. Assume that in each example, the sign is declared with the width specified in the first column of the table and with the message "Everything on sale, please come in", which contains 34 characters.

Width of the Sign	Sign Display
15	Everything on sale, please come in
17	Everything on sale, please come in
40	Everything on sale, please come in

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