

Table 13.4 *The Regular Expression Module's Functions*

| Syntax | Description |
|-------------------------------------|---|
| <code>re.compile(r, f)</code> | Returns compiled regex <code>r</code> with its flags set to <code>f</code> if specified. (The flags are described in Table 13.5.) |
| <code>re.escape(s)</code> | Returns string <code>s</code> with all nonalphanumeric characters backslash-escaped—therefore, the returned string has no special regex characters |
| <code>re.findall(r, s, f)</code> | Returns all nonoverlapping matches of regex <code>r</code> in string <code>s</code> (influenced by the flags <code>f</code> if given). If the regex has captures, each match is returned as a tuple of captures. |
| <code>re.finditer(r, s, f)</code> | Returns a match object for each nonoverlapping match of regex <code>r</code> in string <code>s</code> (influenced by the flags <code>f</code> if given) |
| <code>re.match(r, s, f)</code> | Returns a match object if the regex <code>r</code> matches at the start of string <code>s</code> (influenced by the flags <code>f</code> if given); otherwise, returns <code>None</code> |
| <code>re.search(r, s, f)</code> | Returns a match object if the regex <code>r</code> matches anywhere in string <code>s</code> (influenced by the flags <code>f</code> if given); otherwise, returns <code>None</code> |
| <code>re.split(r, s, m, f)</code> | Returns the list of strings that results from splitting string <code>s</code> on every occurrence of regex <code>r</code> doing up to <code>m</code> splits (or as many as possible if no <code>m</code> is given, and for Python 3.1 influenced by flags <code>f</code> if given). If the regex has captures, these are included in the list between the parts they split. |
| <code>re.sub(r, x, s, m, f)</code> | Returns a copy of string <code>s</code> with every (or up to <code>m</code> if given, and for Python 3.1 influenced by flags <code>f</code> if given) match of regex <code>r</code> replaced with <code>x</code> —this can be a string or a function; see text |
| <code>re.subn(r, x, s, m, f)</code> | The same as <code>re.sub()</code> except that it returns a 2-tuple of the resultant string and the number of substitutions that were made |

Table 13.5 *The Regular Expression Module's Flags*

| Flag | Meaning |
|---|--|
| <code>re.A</code> or <code>re.ASCII</code> | Makes <code>\b</code> , <code>\B</code> , <code>\s</code> , <code>\S</code> , <code>\w</code> , and <code>\W</code> assume that strings are ASCII; the default is for these character class shortcuts to depend on the Unicode specification |
| <code>re.I</code> or <code>re.IGNORECASE</code> | Makes the regex match case-insensitively |
| <code>re.M</code> or <code>re.MULTILINE</code> | Makes <code>^</code> match at the start and after each newline and <code>\$</code> match before each newline and at the end |
| <code>re.S</code> or <code>re.DOTALL</code> | Makes <code>.</code> match every character including newlines |
| <code>re.X</code> or <code>re.VERBOSE</code> | Allows whitespace and comments to be included |