

# Indian comma format (lakh/crore)

Number in Indian grouping: 1,00,000 not 100,000.

```
^\d{1,2}(\,\d{2})*,\d{3}(\.\d+)?$
```

## Token-by-token breakdown

| Token   | Meaning                                     |
|---------|---------------------------------------------|
| ^       | start of string (or line in multiline mode) |
| \d{1,2} | between 1 and 2 times: digit (0–9)          |
| (       | start of a capturing group                  |
| ,       | literal text “,”                            |
| \d{2}   | exactly 2 times: digit (0–9)                |
| )*      | end of group, zero or more                  |
| ,       | literal text “,”                            |
| \d{3}   | exactly 3 times: digit (0–9)                |
| (       | start of a capturing group                  |
| \.      | literal “.”                                 |
| \d+     | one or more: digit (0–9)                    |
| )?      | end of group, optional (zero or one)        |
| \$      | end of string (or line in multiline mode)   |

## Quick usage in 7 languages

|                   |                                                                                            |
|-------------------|--------------------------------------------------------------------------------------------|
| <b>JavaScript</b> | <pre>const re = /^^\d{1,2}(\,\d{2})*,\d{3}(\.\d+)?\$/;<br/>re.test(value);</pre>           |
| <b>Python</b>     | <pre>import re<br/>re.match(r"^\d{1,2}(\,\d{2})*,\d{3}(\.\d+)?\$", value)</pre>            |
| <b>Java</b>       | <pre>Pattern.compile("^\d{1,2}(\,\d{2})*,\d{3}(\.\d+)?\$").matcher(value).matches();</pre> |
| <b>C# / .NET</b>  | <pre>Regex.IsMatch(value, @"^\d{1,2}(\,\d{2})*,\d{3}(\.\d+)?\$");</pre>                    |
| <b>Go</b>         | <pre>regexp.MustCompile(`^\d{1,2}(\,\d{2})*,\d{3}(\.\d+)?\$`).MatchString(value)</pre>     |
| <b>Ruby</b>       | <pre>/^\d{1,2}(\,\d{2})*,\d{3}(\.\d+)?\$/ .match?(value)</pre>                             |
| <b>PHP</b>        | <pre>preg_match('~^\d{1,2}(\,\d{2})*,\d{3}(\.\d+)?\$~', \$value);</pre>                    |

## Common pitfalls

- **Anchored to the whole string.** This pattern uses ^ and \$, so it requires the entire input to match. To find it inside a longer text, drop the anchors and use the global (g) flag.
- **Watch for backtracking.** This pattern nests quantifiers; on adversarial input that can cause exponential backtracking (ReDoS). Test with long non-matching strings, or use an RE2-based engine.
- **Escape it correctly per language.** In Java and JavaScript strings each backslash must be doubled (\\d); in Python, Go, and C# use raw/verbatim strings so the backslashes survive.

- **Validate beyond format.** Matching the format doesn't guarantee the value is real. Confirm the indian comma format (lakh/crore) against a source of truth (database, API, or checksum) where it matters.