**Description**

`compare` reports the differences and similarities between `varname_1` and `varname_2`.

**Quick start**

- Describe differences in missing and defined values of `v1` and `v2`
  
  ```stata
  compare v1 v2
  ```

- As above, but only for observations where `catvar` is equal to 3
  
  ```stata
  compare v1 v2 if catvar==3
  ```

- As above, but for each level of `catvar`
  
  ```stata
  by catvar: compare v1 v2
  ```

**Menu**

- **Data > Data utilities > Compare two variables**

**Syntax**

```stata
compare varname_1 varname_2 [if] [in]
```

`by` is allowed; see [D] `by`.

**Remarks and examples**

- **Example 1**

  One of the more useful accountings made by `compare` is the pattern of missing values:

  ```stata
  . use https://www.stata-press.com/data/r16/fullauto
  (Automobile Models)
  . compare rep77 rep78
  ```

<table>
<thead>
<tr>
<th></th>
<th>count</th>
<th>minimum</th>
<th>average</th>
<th>maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>rep77&lt;rep78</td>
<td>16</td>
<td>-3</td>
<td>-1.3125</td>
<td>-1</td>
</tr>
<tr>
<td>rep77=rep78</td>
<td>43</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>rep77&gt;rep78</td>
<td>7</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>jointly defined</td>
<td>66</td>
<td>-3</td>
<td>-.2121212</td>
<td>1</td>
</tr>
<tr>
<td>rep77 missing only</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>jointly missing</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>total</td>
<td>74</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
We see that both `rep77` and `rep78` are missing in 5 observations and that `rep77` is also missing in 3 more observations.

Technical note

`compare` may be used with numeric variables, string variables, or both. When used with string variables, the summary of the differences (minimum, average, maximum) is not reported. When used with string and numeric variables, the breakdown by `<`, `=`, and `>` is also suppressed.

Also see

[D] `cf` — Compare two datasets
[D] `codebook` — Describe data contents
[D] `inspect` — Display simple summary of data’s attributes