3. Convert Numbers (10 pts)

Write an *instance function* named `convert_numbers` that modifies the values of the numeric fields to be integers instead of strings. In addition, when there is blank space, the value should be zero (0), and when there is an asterisk (*), the number should be four (4). The documentation for the dataset states:

> In the 2016 data, figures between 1 and 4 have been replaced with an asterisk (*). These represent situations where the figures are being kept confidential to protect the anonymity of individuals.

so we will overestimate by setting the value to four (4). The fields that should be updated are (assuming `rename_fields` has already been run):

```
['asylum', 'idps', 'others','refugees', 'ret_idps','ret_refugees','stateless','total']
```

Again, call this method in the constructor (after `rename_fields`), making sure that the dataset is updated to this version.

Hints:

- The records will fall into three cases (asterisk, blank string, and number)
- To be safe, use `.strip()` on a string to get rid of leading and trailing whitespace.
- To convert from a string to an integer, use the `int()` method.
- Use the list above to help streamline the process.

4. Destinations (10 pts)

Write another *instance function* named `get_destinations` that, given one parameter (`origin`), returns all countries that refugees have come from at any time (any year). For example, `s.get_destinations("Turks and Caicos Islands")` would return `['Canada', 'Ukraine', 'United States of America']`.

Hints:

- Consider using a set.

5. Difference (10 pts)

As discussed in Part 3, the dataset uses an asterisk to indicate a variable number of persons between 1 and 4. We have replaced this unknown value with 4, but this may lead to a mismatch between the sum of the individual fields and the reported total. Write an *instance function* named `total_diff` that, given the country, the origin, and the year, computes the difference between the sum of all the individual refugee categories and the `total` field. The list of all fields to be added is:

```
['asylum', 'idps', 'others','refugees', 'ret_idps','ret_refugees','stateless']
```

Then, the difference is computed as (*total* - *sum*). For example, `s.total_diff('Zimbabwe', 'South Africa', 2016)` should return -3.

Hints:

- Start by getting the record in question, and then compute the sum and difference.
- You can use a list comprehension here for the sum.

Extra Credit (+5 pts)

Write another *instance function* named `max_year` that, given a country, returns the year that country had the maximum numer of people of concern in their country over all years in the dataset. You must sum multiple rows as there is one row per origin per year. For example, `s.max_year("Canada")` should return 2010.