Suggestions for `switched.pl`

First of all, try some queries against the `births/4` facts:

```
?- births(Year, Name, Sex, Count).
Year = 1950,
Name = 'Linda',
Sex = f,
Count = 80437 ;

Year = 1950,
Name = 'Mary',
Sex = f,
Count = 65461 ;

Year = 1950,
Name = 'Patricia',
Sex = f,
Count = 47942 .

?- births(1951, 'Dana',Sex,N).
Sex = f,
N = 1076 ;
Sex = m,
N = 1277 ;
false.
```

A good predicate to write first is `ratio_for_year(+Name, +Year, -Ratio)`, to compute the male/female ratio for the given name and year:

```
?- ratio_for_year('Dana',1951,R).
R = 1.186802973977695 ;
false.
```

Have `min_births(+Name, +Year)` simply test to see if a given name meets the 100-name minimum for both males and females in the given year.

```
?- min_births('Dana',1951).
true ;
false.

?- births(1951, 'Elroy',Sex,N).
Sex = m,
N = 70 ;
false.

?- min_births('Elroy',1951).
false.
```

`switched_name(+First, +Last, ?Name)` instantiates `Name` to each of the names that have seen a switch from male dominance in the year `First` to female dominance in the year `Last`.

```
?- switched_name(1951, 1958, Name).
Name = 'Jackie' ;
Name = 'Kim' ;
Name = 'Dana' ;
```

```
Name = 'Kelly' ;
Name = 'Rene' ;
Name = 'Tracy' ;
Name = 'Stacy' ;
false.

?- switched_name(1952, 1953, Name).
false.
```

My `switched_name` makes use of `ratio_for_year` and `min_births`.

`header(+First, +Last)` outputs a header line for the table:

```
?- header(1951,1959).
            1951  1952  1953  1954  1955  1956  1957  1958  1959
true.
```

`line_for_name(+Name, +First, +Last)` outputs the line in the table for a given name:

```
?- line_for_name('Dana', 1951, 1959).
Dana        1.19  1.20  1.26  1.29  1.00  0.79  0.67  0.64  0.57
true.

?- member(Name,['Dana','Tracy']), line_for_name(Name, 1951, 1959),
fail.
Dana        1.19  1.20  1.26  1.29  1.00  0.79  0.67  0.64  0.57
Tracy       1.51  1.14  1.02  0.73  0.56  0.55  0.59  0.59  0.43
```

Finally, `switched(+First, +Last)` ties it all together.

```
?- switched(54,55).
            1954  1955
Dana        1.29  1.00
Kim         1.08  0.61
Kris        1.09  0.92
Pat         1.07  0.92

true.
```

If you look close you'll see that the examples in the write-up don't have the empty line between the table and `true.` that you see above. Both versions test clean because the tester discards empty lines before `diff`'ing.