FEATURES

ITEM RESPONSE THEORY (IRT)

- Binary response models
  - One-parameter logistic (1PL)
  - Two-parameter logistic (2PL)
  - Three-parameter logistic (3PL)
- Ordinal response models
  - Graded response
  - Partial credit
  - Rating scale
- Categorical response models
  - Nominal response
- Hybrid models with differing response types
- Multiple-group models
- Graphs
  - Item characteristic curve
  - Test characteristic curve
  - Item information function
  - Test information function
- Differential item functioning (DIF)

Fit your model

1PL model for items q1-q8
. irt 1pl q1-q8

2PL model for q1-q8
. irt 2pl q1-q8

Partial credit model for q9-q15
. irt pcm q9-q15

Rating scale model for q9-q15
. irt rsm q9-q15

Graded-response model for q9-q15
. irt grm q9-q15

Hybrid model
. irt (2pl q1-q8) (grm q9-q15)

Multiple-group model
. irt 2pl q1-q8, group(grp)
Graph the results

**Item characteristic curve**

```
. irtgraph icc ...
```

**Test information function**

```
. irtgraph tif, se
```

**Test characteristic curve**

```
. irtgraph tcc, scorelines(2 4 6)
```

Explore the results

**Sort items by difficulty**

```
. estat report, sort(b) byparm
```

Use commands or the IRT Control Panel

```
. test report, sort(b) byparm
```

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Learn more about IRT and other Stata features at [stata.com/features](http://stata.com/features).

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