sThe data for this question can be found in the file *PSYC 6327 IRT Assignment Data.xlsx*. For this assignment you will need to use JMP. This is a program made by SAS and is free to use at ECU. The data has test responses from 999 individuals who answered 10 items on the Watson-Glaser Critical Thinking Appraisal.

1. What are the b, a, and c parameters for the 10 items?

| **Item** | **Location (b)** | **Discrimination (a)** | **Guessing (c)** |
| --- | --- | --- | --- |
| WGCTA1 | 0.0054 | 0.9475 | .01 |
| WGCTA2 | -0.0036 | 1.2147 | .01 |
| WGCTA3 | -0.0191 | 3.9005 | 0 |
| WGCTA4 | -0.2650 | 0.4409 | .2 |
| WGCTA5 | 0.1433 | 0.4459 | .12 |
| WGCTA6 | -0.0290 | 0.7678 | .01 |
| WGCTA7 | -0.0704 | 0.9658 | .01 |
| WGCTA8 | -0.1584 | 0.4855 | .12 |
| WGCTA9 | -1.9860 | 0.0172 | .5 |
| WGCTA10 | 0.0181 | 2.4823 | 0 |

Shown above

1. Are all of the items functioning appropriately?

Item 9 does not discriminate on the construct being measured and is not functioning properly.

1. Which is the easiest item and which is the hardest?

Item 4 is the easiest, and item 5 is the most difficult.

1. Which item differentiates applicants the best and which is the worst at differentiating applicants?

Item 3 differentiates the best, and item 4 is the worst at differentiating applicants.