KIDMAP

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PURPOSE

The purpose of KIDMAP is to provide a description of an individual's performance on a set of items in a graphical format that is more or less 'number free'. The information displayed is the relation, at the individual level, between the test taker and the items answered. The display portays the meaning, precision and validity of the individual's test performance. Because this picture shows the individual's whole performance placed in a general frame of reference it can be particularly useful to teachers and parents. Perhaps most important, it can be helpful to the individual taking the test because it gives them the opportunity to see how their strengths and weaknesses are distributed across the subject matter continuum from easy to hard items.

The KIDMAP program creates a one page 'MAP' for each person which shows how that person actually answered each item and, given their total score, how they might have been expected to answer. This comparison of each observed response with its expectation clarifies the implications of the person's estimated ability and identifies any surprises in their response pattern.

This individual-by-item reporting of results is based on the measurement model for test analysis introduced by Georg Rasch in 1960. A Rasch model analysis yields an ability estimate, or measure, for each person and a difficulty estimate, or calibration, for each item. (References which explain and illustrate the theory and practice of Rasch measurement are listed in the bibliography).

KIDMAP uses these person and item estimates to organize a flexible graphic format for reporting individual test results. The version of KIDMAP to be described is called KIDMAP-B to indicate that it is designed to read the person measure and item calibration files produced by the Rasch calibration program called BICAL (Wright, Mead and Bell, 1979).

For information about BICAL or KIDMAP contact: MESA, 5835 Kimbark, Chicago, 60637

DRUG KNOWLEDGE

NAME 01192106019103010207
RAW SCORE 20

DESCRIPTIVE STATISTICS

	LOGITS		MEASURE		
In logits	ABILITY	0.124	ABILITY	101	In lines of figure
	ERROR	0.373	ERROR	003	
	FIT T-TEST	-1.386	QUALITY	010	

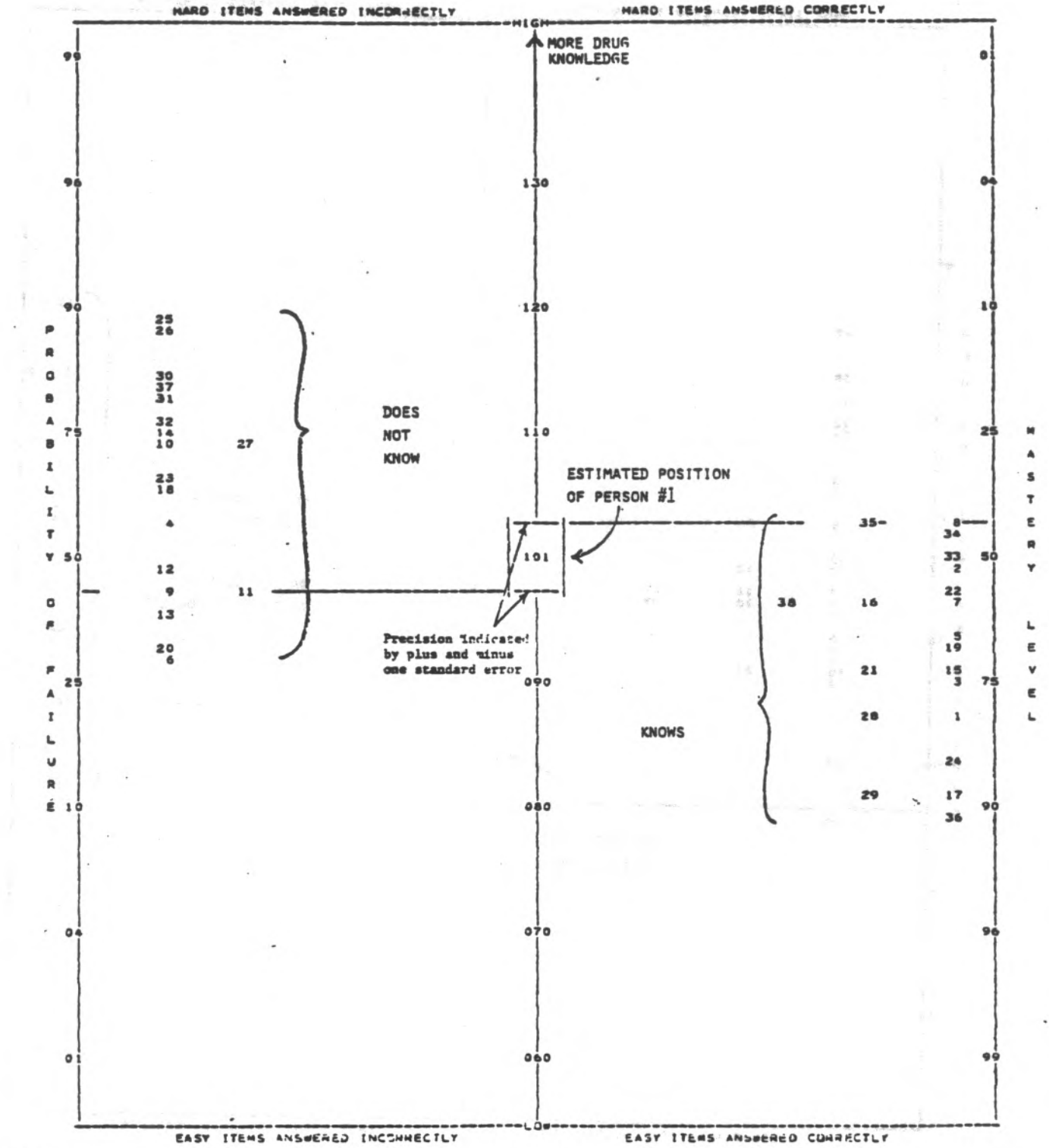


Fig. 1. "Typical" knowledge map of Person #1

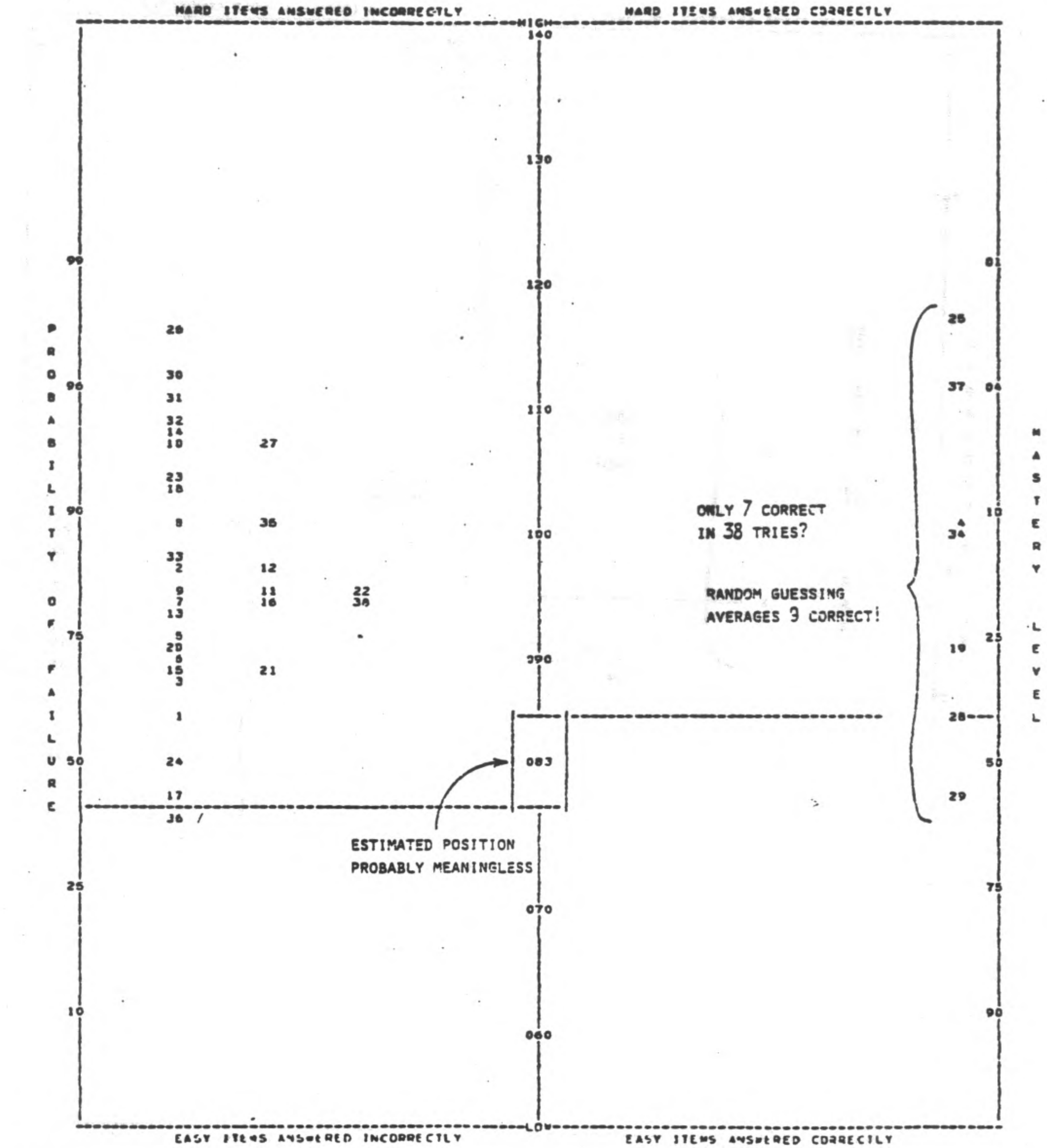
[KIDMAP computer program output. MESA, 5835 Kimbark, Chicago, 60637]

DRUG KNOWLEDGE

NAME (72)9231299051402011
RAW SCORE 7

DESCRIPTIVE STATISTICS

LOGITS		MEASURE	
ABILITY	-1.449	ABILITY	093
ERROR	0.460	ERROR	004
FIT T-TEST	1.294	QUALITY	003



ABILITY MEASURE=(LOGIT ABILITY)*9.1+100 ERROR MEASURE=(LOGIT ERROR)*9.1 QUALITY MEASURE=10-5*(FIT T-TEST)

Fig. 2. "Guessing" pattern of Person #72

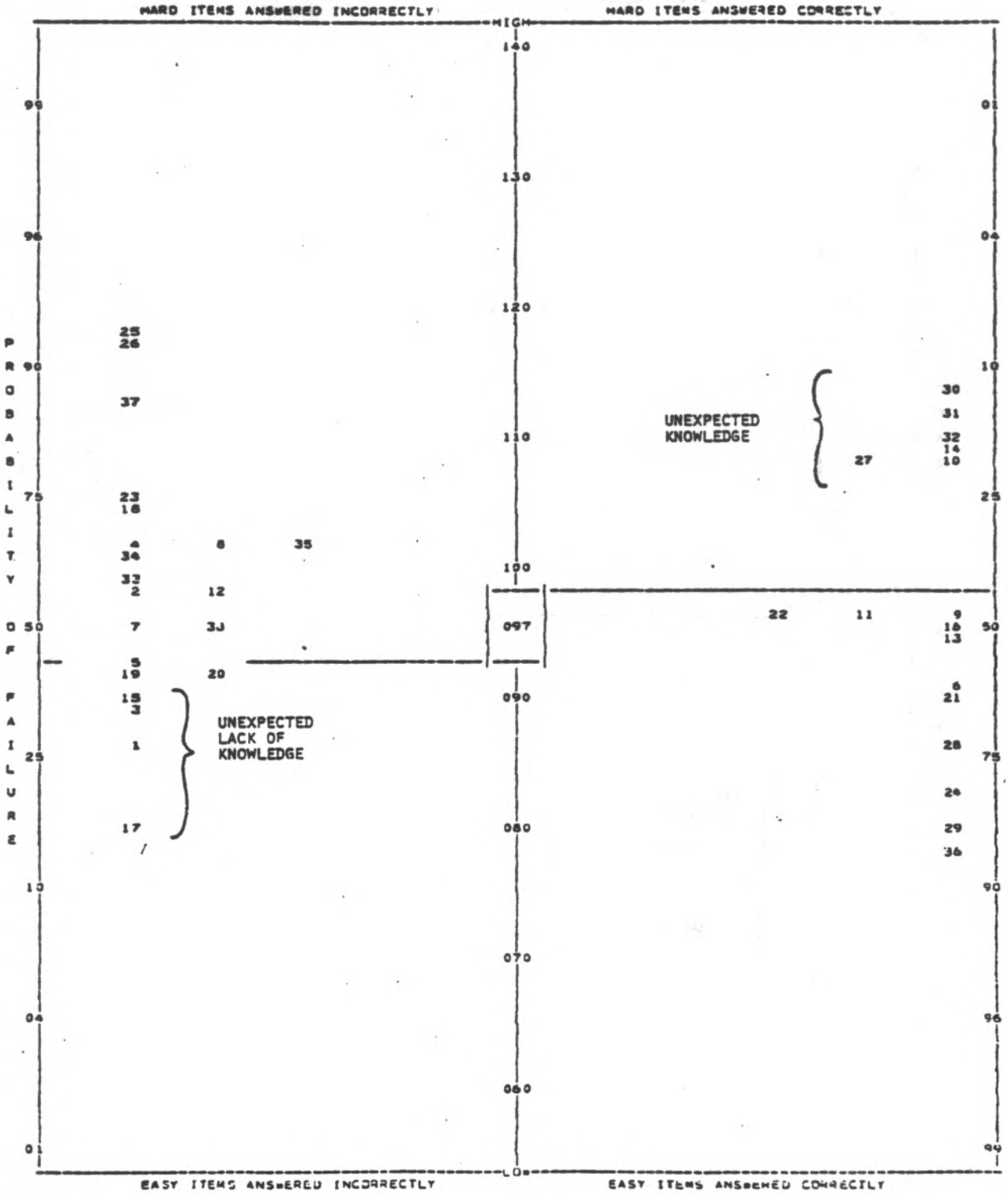
[KIDMAP computer program output. MESA, 5835 Kimbark, Chicago, 60637]

DRUG KNOWLEDGE

NAME (41)232611034611080401
RAW SCORE 17

DESCRIPTIVE STATISTICS

LOGITS		MEASURE	
ABILITY	-0.250	ABILITY	097
ERROR	0.373	ERROR	003
FIT T-TEST	2.758	QUALITY	001



ABILITY MEASURE=(LOGIT ABILITY)*9.1+100 ERROR MEASURE=(LOGIT ERROR)*9.1 QUALITY MEASURE=10-5*(FIT T-TEST)

Fig. 3. "Special knowledge" pattern of Person #31

(BIGMAP computer program output. MESA, 7935 Kimbark, Chicago, 60637)

LINK BETWEEN GRADES 2 AND 3 12-26-79

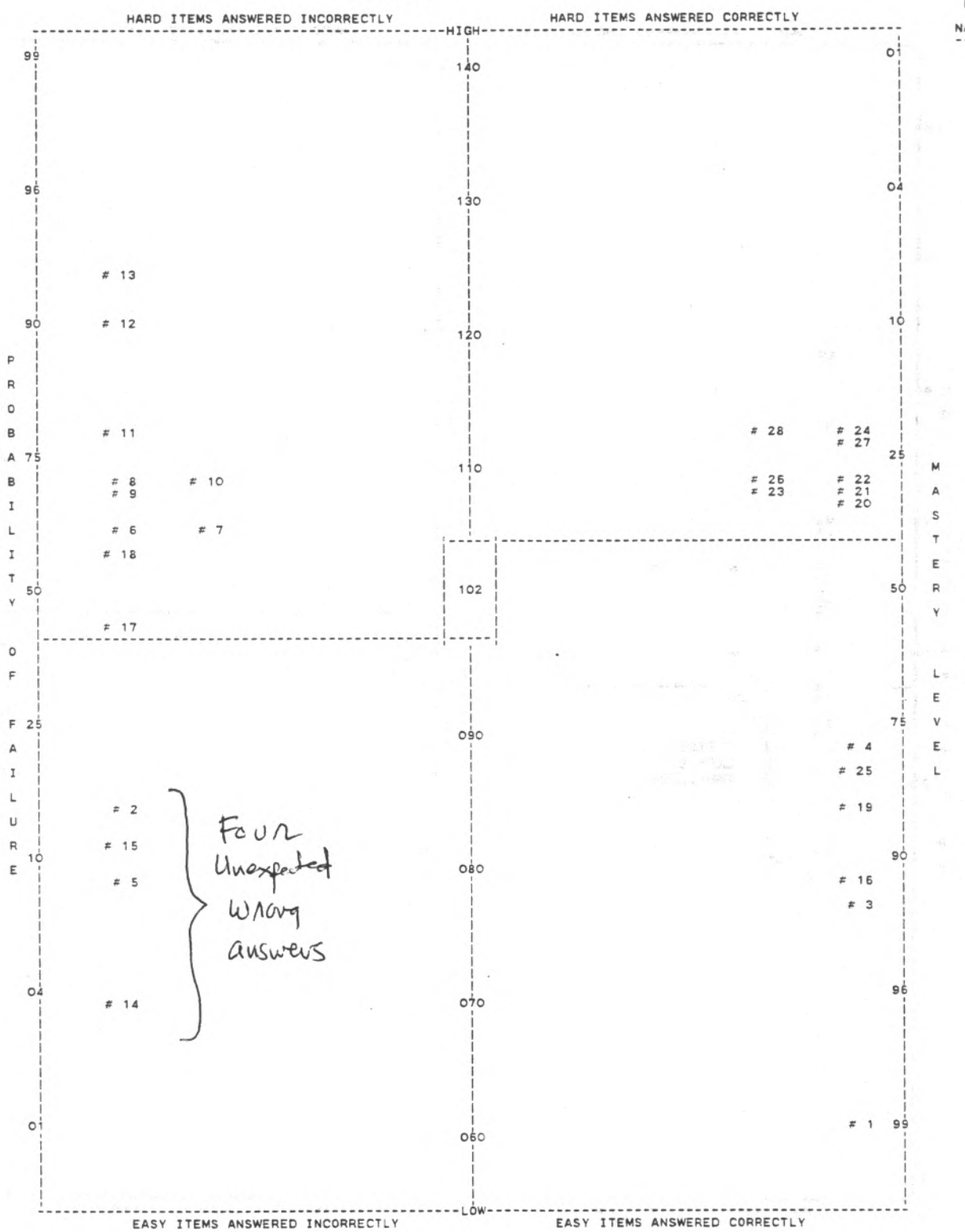
NAME 11011000
JAN 23,1980
RAW SCORE 14

DESCRIPTIVE STATISTICS

	LOGITS	MEASURE	
ABILITY	0.240	ABILITY	102
ERROR	0.497	ERROR	004
FIT T-TEST	3.615	QUALITY	001

MISFIT

LIST OF ITEMS NOT PRINTED
NAME SC LINE



ABILITY MEASURE=(LOGIT ABILITY)*9.1+100 ERROR MEASURE=(LOGIT ERROR)*9.1 QUALITY MEASURE=10-5*(FIT T-TEST)