

A APPENDIX

A.1 DATA STATISTICS OF 7 DATASETS

Table 5: Data statistics of 7 datasets. “Original” and “After Preprocessing” refer to the initial and preprocessed data statistics. “avg KCs” denotes the number of average KCs per question.

Datasets	Original					After Preprocessing				
	interactions	sequences	questions	KCs	avg KCs	interactions	sequences	questions	KCs	avg KCs
Statics2011	194,947	333	1,224	-	-	189,292	1,034	1,223	-	-
ASSISTments2009	346,860	4,217	26,688	123	1.1969	337,415	4,661	17,737	123	1.1970
ASSISTments2015	708,631	19,917	-	100	-	682,789	19,292	-	100	-
Algebra2005	809,694	574	210,710	112	1.3634	884,098	4,712	173,113	112	1.3634
Bridge2006	3,679,199	1,146	207,856	493	1.0136	1,824,310	9,680	129,263	493	1.0136
NIPS34	1,382,727	4,918	948	57	1.0148	1,399,470	9,401	948	57	1.0148
POJ	996,240	22,916	2,750	-	-	987,593	20,114	2,748	-	-

A.2 MORE VISUALIZATION OF SIMPLEKT

We provide more visualization samples of SIMPLEKT in Figures 6-8.

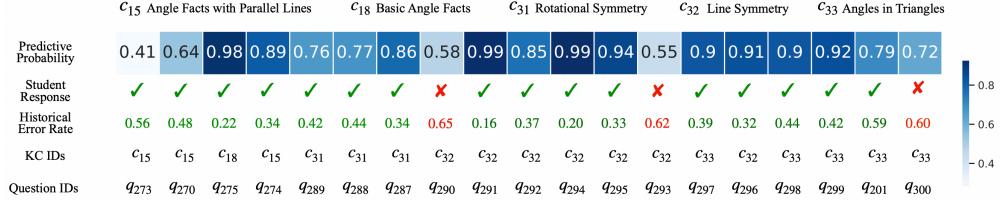


Figure 6: Visualization of student 2’s prediction results on SIMPLEKT.

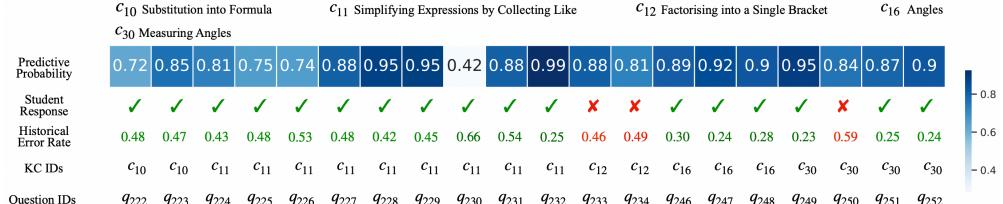


Figure 7: Visualization of student 3’s prediction results on SIMPLEKT.

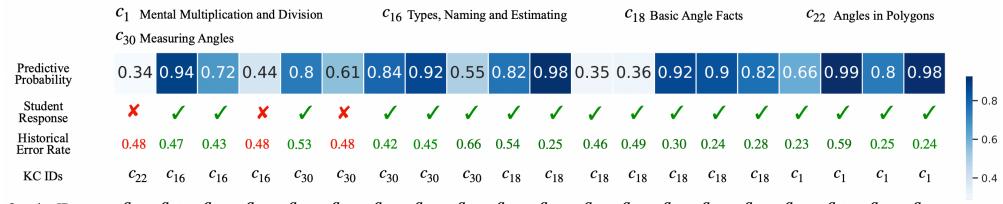


Figure 8: Visualization of student 4’s prediction results on SIMPLEKT.