CHATGPT ANALYSIS RESULTS BASED ON THE BENCHMARK "arepair"

SL	Spec	(1) With fix comment	(2) With bug location but w/o fix comments	(3) No fault location (No Bug / Fix	(4) No indication of bug location	(5) With bug location but w/o fix comments
		[Asked to satisfy		comment and Loc)	nor asking to	
		assertion]	[No mention of		pass the	[Mention of passing
			passing assertion]	[Asked to fix	assertions	assertion]
				assertion]		
1		Instance found. Predicate	(Counterexample)	Type Error Message	(Counterexample)	Instance found.
		is consistent	Instance found.	Observed	Instance found.	Predicate is consistent
		(No counterexample				(No counterexample
	addr1	<u>found)</u>				<u>found)</u>
2		(Counterexample)	No instance found.	Type Error Message	Type Error	Instance found.
		Instance found. (Manual verification and ChatGPT Results)	Predicate may be inconsistent	Observed	Message Observed	Predicate is consistent
		,	Inconsistent			(No counterexample found)
			(No counterexample			(Compilation Warning Given)
			found)			
	arr1					
3		Instance found. Predicate	Instance found.	Type Error Message	Type Error	No instance found.
		is consistent	Predicate is consistent	Observed	Message Observed	Predicate may be
		(No counterexample	(No counterexample			inconsistent
		<u>found)</u>	<u>found)</u>			(NI a constant a constant
						(No counterexample
	arr2					found)
4	UIIZ	Instance found, Predicate	(Counterexample)	Instance found.	(Counterexample)	Type Error Message
		is consistent	Instance found.	Predicate is consistent	Instance found.	Observed
		(No counterexample		(No counterexample		
	balancedBST1	<u>found)</u>		<u>found)</u>		
5		Instance found. Predicate	Instance found.	Type Error Message	(Counterexample)	(Counterexample)
		is consistent	Predicate is consistent	Observed	Instance found.	Instance found.
	I I IDOTO 1	(No counterexample	(No counterexample			
	balancedBST2_1	<u>found)</u>	<u>found)</u>			

6		Instance found. Predicate is consistent (No counterexample found)	Instance found. Predicate is consistent (No counterexample found)	Type Error Message Observed	(Counterexample) Instance found.	(Counterexample) Instance found.
	balancedBST2_2					
7	balancedBST2_3	Instance found. Predicate is consistent (No counterexample found)	Instance found. Predicate is consistent (No counterexample found)	Instance found. Predicate is consistent (No counterexample found)	(Counterexample) Instance found.	Syntax Error The name "abs" cannot be found.
8	balancedBST3_1	Instance found. Predicate is consistent (No counterexample found)	(Counterexample) Instance found.	Instance found. Predicate is consistent (No counterexample found)	(Counterexample) Instance found.	(Counterexample) Instance found.
9	balancedBST3_2	(Counterexample) Instance found. (Manual verification and ChatGPT Results)	(Counterexample) Instance found.	Instance found. Predicate is consistent (No counterexample found)	(Counterexample) Instance found.	Instance found. Predicate is consistent (No counterexample found)
10	bempl1	(Counterexample) Instance found. (Manual verification and ChatGPT Results)	Instance found. Predicate is consistent (No counterexample found)	Instance found. Predicate is consistent (No counterexample found)	Instance found. Predicate is consistent (No counterexample found)	Syntax error at line 17 column 8: There are 1 possible tokens that can appear here:[
11	cd1_1	(Counterexample) Instance found. (Manual verification and ChatGPT Results)	(Counterexample) Instance found.	Instance found. Predicate is consistent (No counterexample found)	(Counterexample) Instance found.	Instance found. Predicate is consistent (No counterexample found)
12	cd1_2	Instance found. Predicate is consistent (No counterexample found)	Instance found. Predicate is consistent (No counterexample found)	Instance found. Predicate is consistent (No counterexample found)	(Counterexample) Instance found.	Type Error Message Observed
13	cd2	Instance found. Predicate is consistent (No counterexample found)	Instance found. Predicate is consistent (No counterexample found)	Instance found. Predicate is consistent (No counterexample found)	(Counterexample) Instance found.	Instance found. Predicate is consistent (No counterexample found)

14	ctree1	Syntax Error in the result provided by ChatGPT (In first result) Instance found. Predicate is consistent (No counterexample found) (By Manual verification)	Type Error Message Observed	Instance found. Predicate is consistent (No counterexample found)	(Counterexample) Instance found.	Instance found. Predicate is consistent (No counterexample found)
15	dll1_1	Instance found. Predicate is consistent (No counterexample found)	Instance found. Predicate is consistent (No counterexample found)	Instance found. Predicate is consistent (No counterexample found)	(Counterexample) Instance found.	Instance found. Predicate is consistent (No counterexample found)
16	dll1_2	Instance found. Predicate is consistent (No counterexample found)	(Counterexample) Instance found.	(Counterexample) Instance found.	(Counterexample) Instance found.	Syntax error The name "null" cannot be found.
17	dll2_1	Instance found. Predicate is consistent (No counterexample found)	Instance found. Predicate is consistent (No counterexample found)	(Counterexample) Instance found.	(Counterexample) Instance found.	(Counterexample) Instance found.
18	dll2_2	Instance found. Predicate is consistent (No counterexample found) (ChatGPT provided wrong result)	(Counterexample) Instance found.	Instance found. Predicate is consistent (No counterexample found)	(Counterexample) Instance found.	Syntax error at line 33 column 32:
19	dll3_1	Instance found. Predicate is consistent (No counterexample found)	Instance found. Predicate is consistent (No counterexample found)	Instance found. Predicate is consistent (No counterexample found)	(Counterexample) Instance found.	(Counterexample) Instance found.
20	dll3_2	(Counterexample) Instance found. (Manual verification and ChatGPT Results)	Instance found. Predicate is consistent (No counterexample found)	Instance found. Predicate is consistent (No counterexample found)	(Counterexample) Instance found.	(Counterexample) Instance found.
21	dll3_3	Instance found. Predicate is consistent (No counterexample found)	Instance found. Predicate is consistent (No counterexample found)	Instance found. Predicate is consistent (No counterexample found)	(Counterexample) Instance found.	Instance found. Predicate is consistent (No counterexample found)
22	dll4	Instance found. Predicate is consistent	Instance found. Predicate is consistent (No counterexample found)	Instance found. Predicate is consistent (No counterexample found)	(Counterexample) Instance found.	(Counterexample) Instance found.

is consistent (No counterexample found) fsm1_1 Instance found. Predicate is consistent (No counterexample found) Instance found) Instance found. Predicate is consistent (No counterexample found) Instance found. Predicate may be inconsistent (No counterexample found) Instance found. Predicate may be inconsistent (No counterexample found) Instance found. Predicate may be inconsistent (No counterexample found) Instance found. Predicate may be inconsistent (No counterexample found) Instance found. Predicate may be inconsistent (No counterexample found) Instance found. Predicate may be inconsistent (No counterexample found) Instance found. Predicate may be inconsistent (No counterexample found) Instance found. Predicate may be inconsistent (No counterexample found) Instance found. Predicate may be inconsistent (No counterexample found) Instance found. Predicate may be inconsistent (No counterexample found) Instance found. Predicate may be inconsistent (No counterexample found) Instance found. Predicate may be inconsistent (No counterexample found) Instance found. Predicate may be inconsistent (No counterexample found) Instance found. (Counterexample found) Instance found. (Counterexample found) Instance found. (Counterexample found) Instance found. Predicate is consistent (No counterexample found) Instance found. (Counterexample found) Instance found. (Counterexamp	23 farmer1	Instance found. Predicate is consistent (No counterexample found)	(Counterexample) Instance found. Predicate is consistent	(Counterexample) Instance found. Predicate is consistent	(Counterexample) Instance found. Predicate is consistent	Syntax Error The name "item" cannot be found.
Instance found. Predicate is consistent (No counterexample found) Fredicate is consistent (No counterexample found)	24 fsm1 1	(No counterexample	(No counterexample	inconsistent (No counterexample	Predicate is	(Counterexample) Instance found.
Instance found. Predicate is consistent (No counterexample found) No instance found. Predicate may be inconsistent (No counterexample found) Instance found. Predicate may be inconsistent (No counterexample found) Instance found. Predicate may be inconsistent (No counterexample found) Instance found. Predicate is consistent (No counterexample found) Instance found. Instance found foun	25	is consistent (No counterexample	Predicate is consistent (No counterexample	Predicate may be inconsistent (No counterexample	Predicate may be inconsistent (No counterexample	Syntax error at line 46 column 1:
Instance found. Predicate is consistent (No counterexample found) Instance found. Instance found	26	is consistent (No counterexample	Predicate may be inconsistent (No counterexample	Predicate may be inconsistent (No counterexample		No instance found. Predicate may be inconsistent (No counterexample found)
Instance found. Predicate is consistent (No counterexample) Instance found. (No counterexample) Instance found. (No counterexample found) (No counterexample) Instance found. (Counterexample) Instanc	27	is consistent (No counterexample		Predicate is consistent (No counterexample		(Counterexample) Instance found.
other1		is consistent (No counterexample			Predicate is consistent (No	(Counterexample) Instance found.

29	student1	Instance found. Predicate is consistent (No counterexample found) (ChatGPT provided wrong result)	Instance found. Predicate is consistent (No counterexample found)	Instance found. Predicate is consistent (No counterexample found)	(Counterexample) Instance found.	Instance found. Predicate is consistent (No counterexample found)
30	student2 1	(Counterexample) Instance found. (Manual verification and ChatGPT Results)	Instance found. Predicate is consistent (No counterexample found)	Instance found. Predicate is consistent (No counterexample found)	Instance found. Predicate is consistent (No counterexample found)	Instance found. Predicate is consistent (No counterexample found)
31	student2_2	Instance found. Predicate is consistent (No counterexample found)	Instance found. Predicate is consistent (No counterexample found)	Instance found. Predicate is consistent (No counterexample found)	(Counterexample) Instance found.	Type Error Message Observed
32	student3 1	Instance found. Predicate is consistent	Instance found. Predicate is consistent (No counterexample found)	Instance found. Predicate is consistent (No counterexample found)	(Counterexample) Instance found.	(Counterexample) Instance found.
33	student3_1	(Counterexample) Instance found. (Manual verification and ChatGPT Results)	(Counterexample) Instance found.	Instance found. Predicate is consistent (No counterexample found)	(Counterexample) Instance found.	(Counterexample) Instance found.
34	student4	Instance found. Predicate is consistent (No counterexample found)	Instance found. Predicate is consistent (No counterexample found)	Instance found. Predicate is consistent (No counterexample found)	(Counterexample) Instance found.	Type Error Message Observed
35		Instance found. Predicate is consistent (No counterexample found)	Instance found. Predicate is consistent (No counterexample found)	Instance found. Predicate is consistent (No counterexample found)	(Counterexample) Instance found.	(Counterexample) Instance found.
	student5					

36	student6 1	Instance found. Predicate is consistent (No counterexample found) (ChatGPT provided wrong result)	(Counterexample) Instance found.	Instance found. Predicate is consistent (No counterexample found)	(Counterexample) Instance found.	Type Error Message Observed
37	student6_2	(Counterexample) Instance found. (Manual verification and ChatGPT Results)	(Counterexample) Instance found.	Instance found. Predicate is consistent (No counterexample found)	(Counterexample) Instance found.	(Counterexample) Instance found.
38	student7_1	Instance found. Predicate is consistent (No counterexample found) (ChatGPT provided wrong result)	(Counterexample) Instance found.	Instance found. Predicate is consistent (No counterexample found)	(Counterexample) Instance found.	(Counterexample) Instance found.
39	student7 2	Instance found. Predicate is consistent (No counterexample found)	(Counterexample) Instance found.	Type Error Message Observed	(Counterexample) Instance found.	Type Error Message Observed
40	student8	Instance found. Predicate is consistent (No counterexample found)	(Counterexample) Instance found.	Instance found. Predicate is consistent (No counterexample found)	(Counterexample) Instance found.	Type Error Message Observed
41	student9	Instance found. Predicate is consistent (No counterexample found)	Instance found. Predicate is consistent (No counterexample found)	Type Error Message Observed	(Counterexample) Instance found.	(Counterexample) Instance found.
42	student10	Instance found. Predicate is consistent (No counterexample found) (ChatGPT provided wrong result)	Instance found. Predicate is consistent (No counterexample found)	Instance found. Predicate is consistent (No counterexample found)	(Counterexample) Instance found.	Instance found. Predicate is consistent (No counterexample found)
43	student11	Instance found. Predicate is consistent (No counterexample found)	Instance found. Predicate is consistent (No counterexample found)	Instance found. Predicate is consistent (No counterexample found)	(Counterexample) Instance found.	(Counterexample) Instance found.
44	student12_1	Instance found. Predicate is consistent (No counterexample found)	Type Error Message Observed	Instance found. Predicate is consistent (No counterexample found)	(Counterexample) Instance found.	Type Error Message Observed

45	student12_2	Instance found. Predicate is consistent (No counterexample found)	Instance found. Predicate is consistent (No counterexample found)	Instance found. Predicate is consistent (No counterexample found)	(Counterexample) Instance found.	(Counterexample) Instance found.
46	student13	Instance found. Predicate is consistent (No counterexample found)	(Counterexample) Instance found.	Instance found. Predicate is consistent (No counterexample found)	(Counterexample) Instance found.	(Counterexample) Instance found.
47	student14_1	Instance found. Predicate is consistent (No counterexample found)	Instance found. Predicate is consistent (No counterexample found)	(Warning displayed) Instance found. Predicate is consistent	(Counterexample) Instance found.	Type Error Message Observed
48	student14_2	Instance found. Predicate is consistent (No counterexample found)	(Counterexample) Instance found.	Instance found. Predicate is consistent (No counterexample found)	(Counterexample) Instance found.	(Counterexample) Instance found.
49	student15	Instance found. Predicate is consistent (No counterexample found)	Instance found. Predicate is consistent (No counterexample found)	(Warning displayed) Instance found. Predicate is consistent	(Counterexample) Instance found.	(Counterexample) Instance found.
50	aturdant4.C	Instance found. Predicate is consistent (No counterexample found)	(Counterexample) Instance found.	Instance found. Predicate is consistent (No counterexample found)	(Counterexample) Instance found.	Syntax error at line 45 column 18: There are 1 possible tokens that can appear here:
51	student16	Instance found. Predicate is consistent (No counterexample found)	Instance found. Predicate is consistent (No counterexample found)	Instance found. Predicate is consistent (No counterexample found)	(Counterexample) Instance found.	Syntax error at line 20 column 15: There are 1 possible tokens that can appear here:
52	student17_1	Instance found. Predicate is consistent (No counterexample found)	(Counterexample) Instance found.	Instance found. Predicate is consistent (No counterexample found)	(Counterexample) Instance found.	(Counterexample) Instance found.
	student17_2					

53	student18 1	Instance found. Predicate is consistent (No counterexample found)	(Counterexample) Instance found.	(Counterexample) Instance found.	(Counterexample) Instance found.	(Counterexample) Instance found.
54	student10_1	Instance found. Predicate	(Counterexample)	(Counterexample)	(Counterexample)	(Counterexample)
		is consistent	Instance found.	Instance found.	Instance found.	Instance found.
		(No counterexample				
	student18_2	found)				
55		Instance found. Predicate	Type Error Message	(Counterexample)	Instance found.	Instance found.
		is consistent	Observed	Instance found.	Predicate is	Predicate is consistent
		(No counterexample			consistent	(No counterexample
		<u>found)</u>			(No	<u>found)</u>
	student10 2				counterexample	
	student18_3		(0 1 1)	(0)	found)	
56		Instance found. Predicate	(Counterexample)	(Counterexample)	(Counterexample)	Instance found.
		is consistent	Instance found.	Instance found.	Instance found.	Predicate is consistent
	student19_1	(No counterexample				(No counterexample
	student19_1	found)	(0 - 1 1 -)	(0 1 1 -)	(0 (found)
57		Instance found. Predicate	(Counterexample)	(Counterexample)	(Counterexample)	Type Error Message
		is consistent	Instance found.	Instance found.	Instance found.	Observed
	student10 2	(No counterexample				
	student19_2	<u>found)</u>				