



PRO SOLVE 2018

NATIONAL PROGRAMMING COMPETITION

25 NOVEMBER
UiTM SHAH ALAM





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Problem Set Analysis



Problem Setters



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A	Find the Pair!	Harith (UiTM Shah Alam)
B	What's the Reading?	Amirul Ashraf (IIUM)
C	Count	Shahril (UiTM Shah Alam)
D	Smart Garbage Disposal System	Ikhwan (UiTM Shah Alam)
E	Give me Path	Mokhdzani Faeq (UNITEN)
F	Calculator	Shahril (UiTM Shah Alam)
G	Narrow It Down!	Harith (UiTM Shah Alam)
H	Linear Regression	Shahril (UiTM Shah Alam)
I	Prime Test	Shahril (UiTM Shah Alam)
J	Ahmad's Tree	Amirul Ashraf (IIUM)





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		Level	Attempt	# of YES
A	Find the Pair!	Easy	85	15
B	What's the Reading?	Hard	33	4
C	Count	Medium	34	10
D	Smart Garbage Disposal System	Medium	81	6
E	Give me Path	Hard	28	2
F	Calculator	Easy	121	16
G	Narrow It Down!	Easy	30	19
H	Linear Regression	Easy	21	6
I	Prime Test	Easy	57	23
J	Ahmad's Tree	Very-Hard	58	0





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		Solving Approach
A	Find the Pair!	Two nested loops = $O(n^2)$ complexity
B	What's the Reading?	Binary search
C	Count	Fibonacci, BigInt
D	Smart Garbage Disposal System	Greedy approach
E	Give me Path	Dijkstra (custom implementation)
F	Calculator	Implementation, Edge-case checking
G	Narrow It Down!	Implementation problem
H	Linear Regression	Implementation, Based on given formula
I	Prime Test	Implementation, Prime number caching
J	Ahmad's Tree	Segment Tree



1st YES



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		Team	Minutes
A	Find the Pair!	ALPHA Q	23
B	What's the Reading?	ALPHA Q	44
C	Count	CSC	14
D	Smart Garbage Disposal System	ALPHA Q	67
E	Give me Path	ALPHA Q	100
F	Calculator	ALPHA Q	6
G	Narrow It Down!	ALPHA Q	13
H	Linear Regression	iM26C4u	21
I	Prime Test	ALPHA Q	2
J	Ahmad's Tree	-	-

