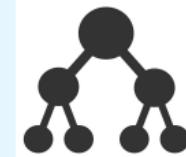


Concept-to-Code

Sources

{pdf, HTML, Json}

{Math, Algo, Phy, Chem, ..}



Concepts

Instruction

Code

Test-Cases

Code Verification



(Code, Tests)



(Code, Tests)

....

....

(Code, Tests)

(Code, Tests)

Code1

Code2

Code3

Test- Case1

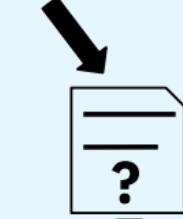
Test- Case2

Test- Case3

CoT Generation

Filtered
(code, test)
Exec-Traces

```
numbers = [10.0]
call    3 def calculate_average(numbers)
line   numbers = [10.0]
line   total = 0
line   for number in numbers:
line     total += number
line   total = total / len(numbers)
line   return total
number = 10.0
total = 0.0
for number in numbers:
    number = 10.0
    total += number
total = total / len(numbers)
return total
```



Forward

Backward