

I. 背景

问题 q : Find A that satisfies $32 \times A \times A \times A = 42592$

模版 T : Find A that satisfies $\langle \text{coefficient} \rangle \times A \times A \times A = \langle \text{result} \rangle$

变量集 x :

$\{\{\text{name}: \langle \text{coefficient} \rangle, \text{type}: \text{int}, \text{value}: 32\},$
 $\{\text{name}: \langle \text{result} \rangle, \text{type}: \text{int}, \text{value}: 42592\}\}$

逻辑 L_T 的代码形式:

$A_cubed = \text{result} / \text{coefficient}$
 $A = A_cubed^{**} (1 / 3)$

逻辑 L_T 的文本形式:

First, divide both sides by $\langle \text{coefficient} \rangle$. Then,

思维链 (CoT):

First, divide both sides by 32. Then, take the cube root of 1331.

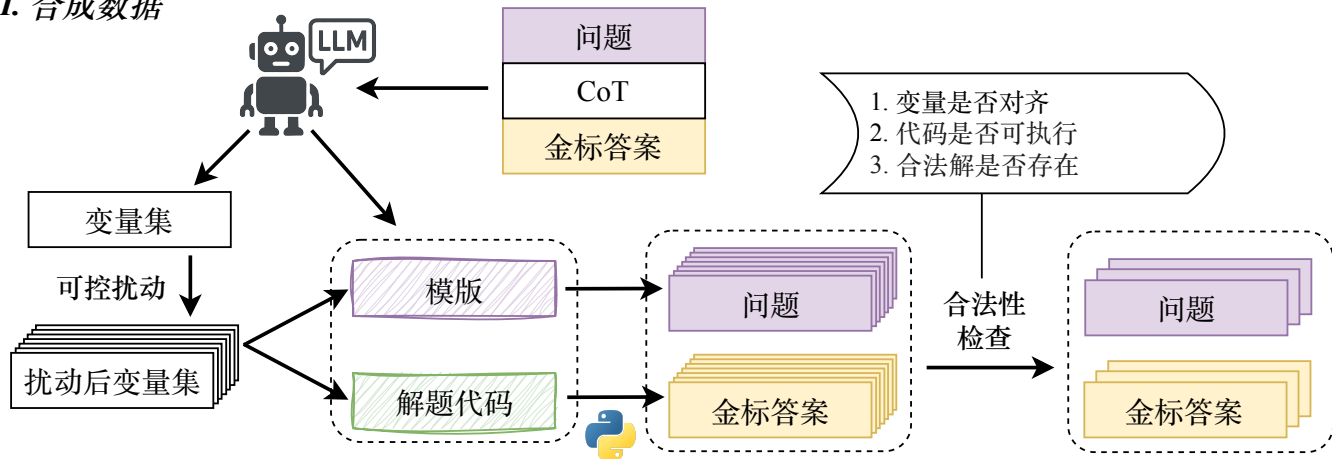
金标答案 y : The answer is \boxed{11}.

q $\xrightarrow{\text{直接推理}}$ y

q $\xrightarrow{\text{来自虚假推理的CoT}} z \xrightarrow{\quad} y$

$T(x)$ $\xrightarrow{\text{来自自适应推理的CoT}} L_T(x) \xrightarrow{\quad} y$

II. 合成数据



III. 强化学习

