

Math LLM Evaluation Suite

 Single Question Mode  Dataset Evaluation Mode  Visualize Auto-Loop Results

Dataset Evaluation — Visual Summary

Raw Results Table

	ID	Problem	Ground Truth Answer	Ground Truth Solution
0	test/precalculus/807.json	Convert the point $(0,3)$ in rectangular coordinates to polar coordinates. Enter your answer in the form (r, θ) .	We have that $r = \sqrt{0^2 + 3^2} = 3$. Also, if we draw the line connecting the origin to the point $(0,3)$, we can see that the angle between the positive x-axis and the line is $\pi/2$.	
1	test/intermediate_algebra/1994.json	Define $p = \sum_{k=1}^{\infty} \frac{1}{k^2}$. What is the value of $p - q$?	We count the number of times $\frac{1}{n^3}$ appears in the sum $\sum_{j=1}^{\infty} \frac{1}{j^2}$.	
2	test/algebra/2584.json	If $f(x) = \frac{1}{x-2}$, what is the value of $f(-2) + f(-1) + f(0)$? Express your answer as a fraction.	$f(-2) + f(-1) + f(0) = \frac{1}{-2-2} + \frac{1}{-1-2} + \frac{1}{0-2} = \frac{1}{-4} + \frac{1}{-3} + \frac{1}{-2} = -\frac{1}{4} - \frac{1}{3} - \frac{1}{2} = -\frac{3}{12} - \frac{4}{12} - \frac{6}{12} = -\frac{13}{12}$	
3	test/number_theory/572.json	How many positive whole-number divisors does 196 have?	9	First prime factorize $196 = 2^2 \cdot 7^2$. The prime factorization of any divisor of 196 must be of the form $2^a \cdot 7^b$ where $0 \leq a \leq 2$ and $0 \leq b \leq 2$. There are $(2+1)(2+1) = 9$ such divisors.
4	test/algebra/1349.json	The results of a cross-country team's training run are graphed below. Which student ran the farthest?	Evelyn covered more distance in less time than Briana, Debra and Angela, so her average speed was the highest.	
5	test/prealgebra/1622.json	A regular hexagon can be divided into six equilateral triangles. If the perimeter of one triangle is 42, what is the perimeter of the hexagon?	The side length of the hexagon is equal to the side length of one of the equilateral triangles.	
6	test/number_theory/515.json	What is the smallest positive perfect cube that can be written as the sum of three consecutive integers?	The sum of three consecutive integers takes the form $(k-1)+(k)+(k+1)=3k$ and hence $3k=27$ implies $k=9$.	
7	test/precalculus/927.json	The set of points (x,y,z) that satisfy $2x = 3y = -z$ is a line. The set of points (x,y,z) that satisfy $x^2 + y^2 + z^2 = 90$ is a sphere.	For the first line, let $t = 2x = 3y = -z$. Then $x = t/2$, $y = t/3$, and $z = -t$. Substituting into the second equation, we get $(t/2)^2 + (t/3)^2 + (-t)^2 = 90$, which simplifies to $t^2/4 + t^2/9 + t^2 = 90$, or $13t^2/36 = 90$, or $t^2 = 90 \cdot 36/13$, or $t = \pm \sqrt{90 \cdot 36/13}$.	
8	test/algebra/2036.json	What is the distance, in units, between the points $(2, -6)$ and $(-4, 3)$? Express your answer in simplest radical form.	We use the distance formula: $\sqrt{(2 - (-4))^2 + ((-6) - 3)^2} = \sqrt{6^2 + (-9)^2} = \sqrt{36 + 81} = \sqrt{117} = 3\sqrt{13}$	
9	test/prealgebra/1139.json	The expression $2 \cdot 3 \cdot 4 \cdot 5 + 1$ is equal to 121, since multiplication is carried out from left to right.	By the associative property of multiplication, it doesn't help to insert parentheses here.	

Summary Metrics

Total Questions

100

Raw LLM Correct

96 (96.0%)

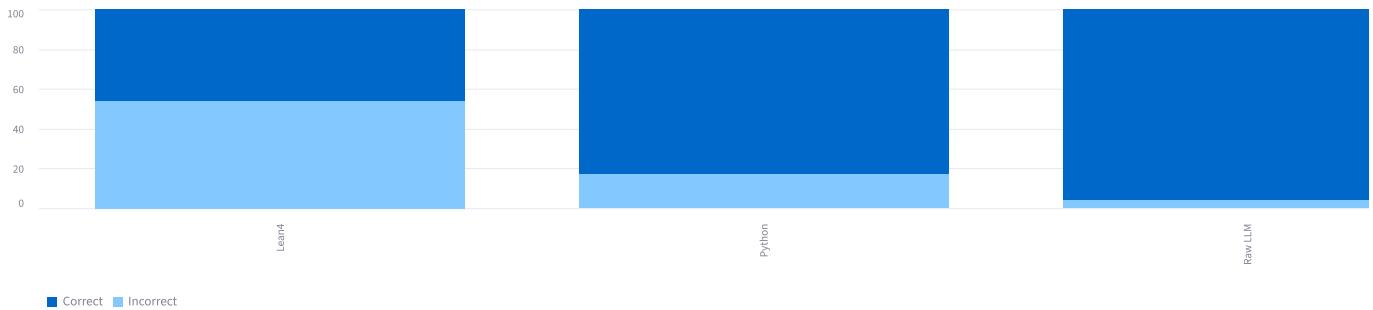
Python Correct

83 (83.0%)

Lean4 Correct

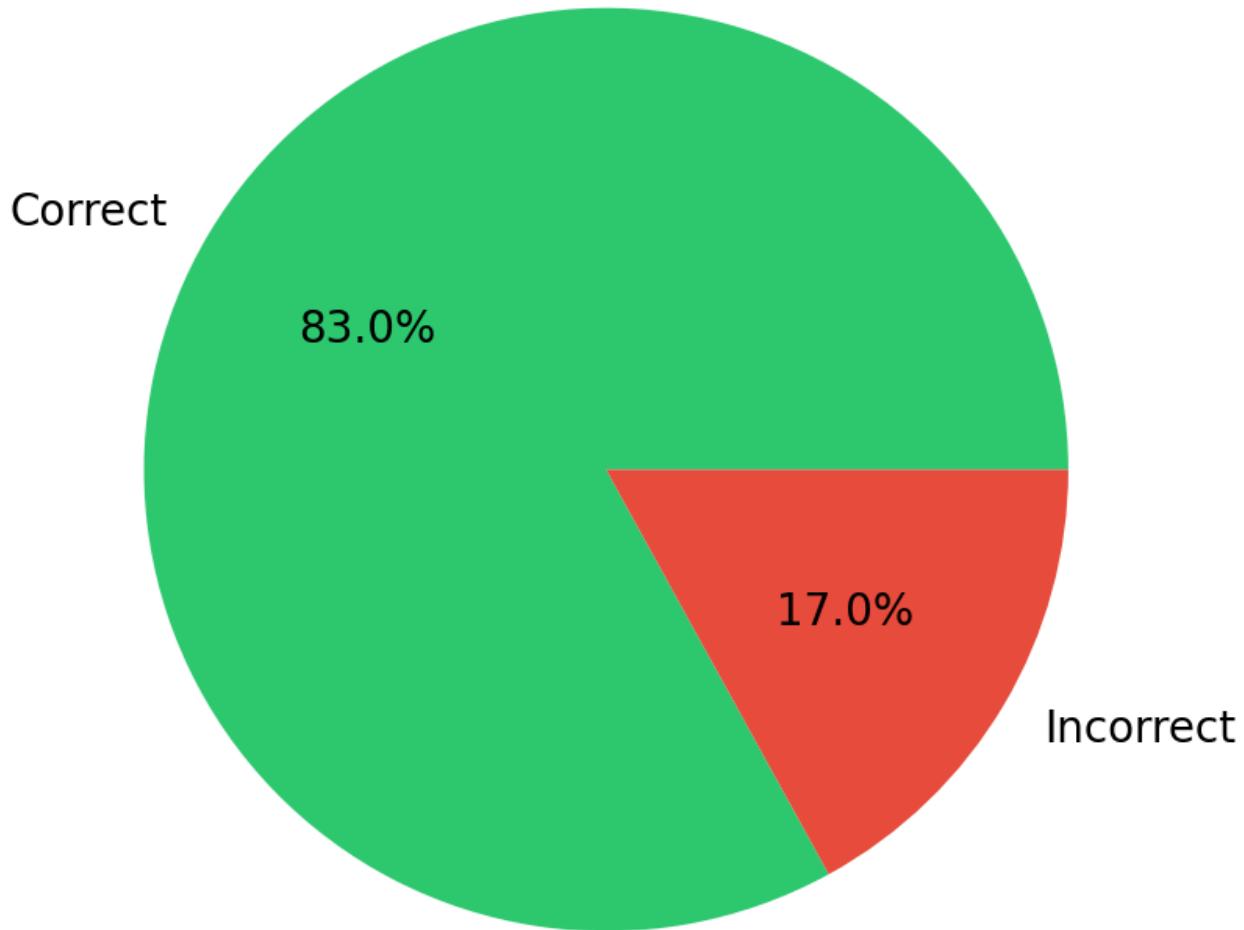
46 (46.0%)

Correctness by Method



Python Correctness Distribution

Python Answer Correctness



Filter Incorrect Predictions

Filter by method:

Raw LLM Incorrect

4 incorrect predictions found:

ID	Problem	Ground Truth Answer	Ground Truth Solution	Pure
18	test/geometry/434.json	\$\overline{BC}\$ is parallel to the segment through \$A\$, and \$AB = BC\$. What is the nu 28	Angle \$\\angle BCA\$ and the angle we're trying to measure are alternate interior angles. Therefore, they are congruent. Since \$AB = BC\$, triangle \$ABC\$ is isosceles. Therefore, \$\\angle BCA = \\angle ABC\$. Since \$\\angle ABC = 28^\\circ\$, \$\\angle BCA = 28^\\circ\$.	56
67	test/prealgebra/1233.json	The lengths of two opposite sides of a square are decreased by \$40\%\$ while the leng 10	Let \$S\$ be the area of the square. The lengths of one pair of opposite sides was decreas	10%
80	test/intermediate_algebra/1849.json	Find the number of integer values of \$k\$ in the closed interval \$[-500,500]\$ for which \$501	First, note that if \$k < 0\$, then \$\log(k)\$ is defined for \$x \in (-\infty, 0)\$ and is strictly decreasing. If \$k > 0\$, then \$\log(k)\$ is defined for \$x \in (0, \infty)\$ and is strictly increasing. Since \$\log(501) \approx 6.21\$, we have \$-\log(-501) \approx -6.21\$.	1
96	test/intermediate_algebra/662.json	Find the real roots of \$\frac{(x+1)(x-3)}{(5(x+2)(x-4)} + \frac{(x+3)(x-5)}{9(x+4)(x-1)} = \pm \sqrt{19}	Multiplying out each numerator and denominator, we get \$\frac{5(x^2-2x-3)}{(5(x^2-2x-3)(5(x^2-2x-3)-6.53)}	