

Adding Odd Numbers with LLMs

Background

This prompt tests an LLM's mathematical capabilities by prompting it check if adding odd numbers add up to an even number. We will also leverage chain-of-thought prompting in this example.

Prompt

The odd numbers in this group add up to an even number: 15, 32, 5, 13, 82, 7, 1.
Solve by breaking the problem into steps. First, identify the odd numbers, add them, and indicate whether the result is odd or even.

Code / API

[GPT-4 \(OpenAI\)](#) Mixtral MoE 8x7B Instruct (Fireworks)

```
from openai import OpenAI
client = OpenAI()

response = client.chat.completions.create(
    model="gpt-4",
    messages=[
        {
            "role": "user",
            "content": "The odd numbers in this group add up to an even number: 15, 32, 5, 13, 82, 7, 1. \nSolve by breaking the problem into steps. First, identify the odd numbers, add them, and indicate whether the result is odd or even."
        }
    ],
    temperature=1,
    max_tokens=256,
    top_p=1,
    frequency_penalty=0,
    presence_penalty=0
)
```

Reference

- [Sparks of Artificial General Intelligence: Early experiments with GPT-4](#) (13 April 2023)

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