

Exercise 5-1: Calculator Tool

Objective

Add a Calculator tool to the AI Agent and compare its math accuracy to the LLM alone (from Module 1).

Prerequisites

- **Exercise 4-1** completed (working RAG pipeline)

n8n Nodes

- **Calculator** – performs exact arithmetic calculations

Setup

1. Open your chat workflow
2. Add a **Calculator** tool node
3. Connect it to the **AI Agent** as a tool

Demo Prompts

Try these prompts and observe the agent using the Calculator tool:

Simple Calculation

- “What’s 72% of 137 seconds?”

Multi-Step Calculations

- “Check and Pay saves employers 20,000 hours annually. If efficiency gains grow at 12% per year compounded, how many hours will it save in year 5?”

- “Calculate: 17% of \$7,400, then multiply by 12 months, and add 4% interest compounded annually for 3 years”

Your Task

Compare With and Without Calculator

1. Run the multi-step prompts above **with the Calculator tool connected**
2. Record the answers
3. Now think back to Module 1 (Exercise 1-2) when the LLM attempted these same calculations without a tool
4. Compare: Are the answers different? More accurate?

Observe the Agent's Behavior

- Does the agent break the problem into steps?
- Can you see it calling the Calculator tool in the execution log?
- Does it use the Calculator for every calculation, or only some?

What to Submit

1. The bot's answers to each calculation prompt (with Calculator tool)
2. Comparison with the LLM-only answers from Exercise 1-2
3. Your observation: When does the agent choose to use the Calculator vs. calculating on its own?