MCP SERVER | NO CODE | CLOUD HOSTED

Leftover Ratio Calculator MCP

Calculate perfect portions, every single time.

Leftover Ratio Calculator instantly figures out optimal food and drink quantities for any event. Stop guessing when you order catering or plan a potluck; this MCP uses guest count, meal style, and expected appetite levels to calculate precise weights for main courses, sides, starches, and beverages. It's built to minimize waste and ensure every plate is perfect.

A+ Quality Score 100/100

food-waste | catering | event-management | optimization | portion-control

MAINTAINED BY VINKIUS CLOUD FOR AI AGENTS · JUNE 2026
vinkius.com/mcp/leftover-ratio-calculator

SCAN TO VIEW

The infrastructure that powers AI agents in the real world.

Vinkius connects AI to the world's software through secure, enterprise-grade infrastructure — enabling real-world execution at scale, built on the Model Context Protocol (MCP).

Your AI Connections Run Through Vinkius Cloud

The world's largest managed MCP catalog

Vinkius is the cloud infrastructure where AI agents connect to the software your business already runs. We handle the hosting, the security, the credentials, the uptime — you get agents that actually do things.

We operate the world's largest managed MCP catalog. Major SaaS platforms, CRMs, databases, and cloud providers — running, monitored, production-ready. This MCP server is hosted and maintained by the Vinkius Cloud for AI Agents.

> *The agent doesn't manage credentials, doesn't manage uptime, doesn't manage security. Vinkius does.*
>
> — Architecture principle

Four Pillars of the Vinkius Runtime

01 — Security by design

Credentials stay encrypted at rest via AES-256. The AI agent never touches raw keys — they're injected into a sandboxed V8 isolate at runtime. Actions are logged, and connections have an emergency kill switch.

02 — Built on MCP Fusion

This MCP server was built with **MCP Fusion**, the open-source framework (Apache 2.0) that powers the entire Vinkius catalog. Schema-as-firewall strips undeclared fields, compiled PII redaction runs at zero overhead, and cryptographic lockfiles produce git-diffable audit trails.

03 — Deterministic observability

Eight immutable metrics per endpoint: request volume, p95 latency, error rate, active connections, cost attribution. A live payload feed logs every tool call with mutation detection.

04 — Autonomous operations

Servers are deployed, monitored, and patched autonomously. New capabilities and security patches ship weekly. Zero-downtime deployments ensure continuous availability across all managed MCP servers.

AES-256	Ed25519	24h TTL	V8 Isolate
Encryption at rest	PKI vault signatures	Ephemeral session keys	Sandboxed execution

One Token. Instant Access.

Every MCP server on Vinkius is accessed through a **Connection Token**. Tokens are generated in the cloud dashboard and produce a unique MCP endpoint URL. Paste this URL into any MCP-compatible client — no SDK required.

A single token can serve **multiple AI clients simultaneously**, or you can issue separate tokens per client for granular access control. Each token tracks its own request count, last activity timestamp, and can be individually enabled or revoked.

MCP ENDPOINT

```
https://edge.vinkius.com/{token}/mcp
```

Claude · Cursor · VS Code · Windsurf · Grok · Gemini

Security Is the Architecture

Security in Vinkius is not a feature — it's the foundation of the runtime. The gateway enforces multiple independent protection layers between AI agents and third-party APIs.

01 — Ed25519 PKI Vault

Every workspace has an Ed25519 Master Key. Session keys are generated ephemerally (24h TTL) and signed by the Master Key. Credentials never leave the vault boundary.

02 — V8 Isolate Sandboxing

Tool code runs inside isolated-vm V8 isolates with 64 MB memory caps and per-request timeouts. No filesystem access, no network access except through the SSRF-guarded fetch bridge.

03 — SSRF Guard

All outbound HTTP requests are DNS-resolved and validated before execution. Private IP ranges (10.x, 172.16-31.x, 192.168.x, AWS metadata 169.254.x) are blocked at the network layer.

04 — DLP & PII Redaction

A ResponseGuard pipeline intercepts every tool response. Configurable redaction patterns strip sensitive fields (emails, SSNs, card numbers) before data reaches the AI agent.

05 — Cryptographic Audit Trail

Every request is signed into a SHA-256 hash chain with Ed25519 signatures. Events form a tamper-proof, SIEM-exportable forensic record.

06 — Honeytoken Trap System

Phantom credentials are injected into isolated environments. If a honeytoken is used outside Vinkius infrastructure, the server is quarantined instantly.

Emergency Kill Switch

EU AI Act Art. 14(1) Compliant

The kill switch is an **emergency halt** mechanism — not a simple toggle. When triggered, it executes three actions atomically:

01 — Server deactivated

The MCP server is immediately taken offline across the entire cluster.

02 — All tokens revoked

Every connection token is invalidated. Total lockout — reconnection blocked until new tokens are issued.

03 — WebSocket connections killed

Active connections terminated via Redis pubsub broadcast. Propagates to every runtime node in the cluster.

Full Visibility. Zero Guesswork.

The Vinkius cloud dashboard includes a full MCP Governance suite — real-time analytics and security controls for production AI operations.

Control Plane

KPI dashboard with request volume, latency, success rate, token consumption, and AI-generated operational briefings.

Agent Activity

Which AI clients are connecting, how often, and what they're doing — real-time session tracking.

FinOps

Cost tracking per tool, payload compression savings, budget optimization signals, and consumption trends.

Tool Health

Slowest and most error-prone tools, with actionable root-cause insights and performance baselines.

Firewall & DLP

PII redaction activity, sensitive data protection counters, and security event timeline.

Incident Log

Error trends, failure rates, status-code breakdowns, and forensic audit trail access.

> Get started at **cloud.vinkius.com** — connect your AI agent in under 60 seconds.

Leftover Ratio Calculator MCP

4 tools available
Cloud-hosted on Vinkius

Planning an event used to mean ordering massive amounts of food just in case, which always resulted in mountains of expensive leftovers or, worse, running out entirely. This MCP changes that by acting as a precise estimation engine for catering needs. You feed it the basic parameters—like how many people are coming and if it's a casual lunch or a formal dinner—and it spits out actionable numbers. It calculates ideal portions not just for proteins and sides, but also estimates exactly how much beverage capacity you need to cover the event duration.

When you connect this MCP via Vinkius, your AI client runs the necessary calculations instantly. You can figure out if a formal service requires different ratios than a buffet setup. It handles everything from calculating main course weights to checking the overall risk of waste, giving you confidence in your final order.

Core Capabilities

01 — Calculate Main Course Portions

It determines the exact required weight for the central protein and meat dishes.

02 — Estimate Sides and Starches

This function calculates the optimal amounts of vegetables, starches, and accompanying side dishes.

03 — Estimate Beverage Requirements

It provides a calculated total volume needed for drinks based on event length and guest count.

04 — Analyze Waste Risk

The MCP assesses your current plans against historical data to pinpoint potential food waste risks before the event starts.

One Click on Vinkius — From Prompt to Execution

Available at **vinkius.com/mcp/leftover-ratio-calculator** — connect your AI agent in three steps.

01 Provide the necessary inputs: the total number of guests, the expected meal type (e.g., buffet, seated), and the estimated time frame for the event.

02 Your AI client calls the required tools, such as `calculate_main_course_portions` and `estimate_beverage_requirements`, running multiple ratio calculations simultaneously.

03 The MCP delivers a single, consolidated report detailing precise weights for every food category and total beverage volume needed.

The bottom line is you get an exact inventory list that minimizes ordering excess while guaranteeing enough high-quality food for everyone attending.

Built For

Catering managers, corporate event planners, and restaurant owners who are sick of overpaying for wasted food. If your job involves coordinating logistics for groups larger than five people, you need this.

Event Coordinator

Uses the MCP to set realistic portion counts based on guest demographics and meal formality before finalizing catering contracts.

Catering Manager

Runs `analyze_waste_risk` against a proposed menu to adjust ingredient quantities, saving thousands in waste fees.

Restaurant Owner

Tests the tool on past event data to create standardized, reliable portion guides for future large gatherings.

What Changes When You Connect

01 Stop guessing on proteins. Use `calculate_main_course_portions` to get the precise weight of meat needed for your guest count, eliminating guesswork and costly shortages.

02 Cut waste immediately. Running `analyze_waste_risk` tells you where your menu is weak before you even send out an invoice, saving money right away.

03 Perfect sides every time. This MCP handles more than just mains; use `calculate_sides_and_starches` to nail the ratios for rice, potatoes, and veggies.

04 Know your drink limits. Never run out of water or soda again. Use `estimate_beverage_requirements` to match consumption to event length.

05 Time savings are huge. Instead of cross-referencing three different industry guides, you get one definitive calculation using the entire suite of tools.

Real-World Applications

The Corporate Buffet Nightmare

A marketing director needs to cater a 200-person corporate lunch. Instead of ordering huge amounts just in case, they ask their agent to run the Leftover Ratio Calculator. It uses `calculate_main_course_portions` and `calculate_sides_and_starches` to give them exact grams for everything, saving them about $1,500 on over-ordering.

The Gala Dinner Audit

A catering manager is planning a formal 3-hour dinner. They run the tool and it flags high waste risk because of an overly rich menu combination. The MCP suggests adjusting starches, allowing them to keep the luxury feel while significantly cutting down on food scraps.

The Casual Pop-Up Event

An organizer is hosting a casual outdoor event for 50 people and isn't sure about drinks. They run `estimate_beverage_requirements` with the duration, and it tells them to prep exactly 12 liters of beverages, preventing them from buying unnecessary coolers full of wasted soda.

Patterns to Avoid

Using generalized catering guides

✗ AVOID

Relying on generic industry guidelines that suggest '3-4 oz per person' without adjusting for the specific meal type or appetite level.

✓ INSTEAD

You must use `calculate_main_course_portions` because it adjusts portions based on the complexity of your meal (e.g., a formal dinner vs. a picnic).

Checking waste risk manually

✗ AVOID

Trying to cross-reference multiple food service guides and historical data sheets to see where you might be over or underestimating.

✓ INSTEAD

Just run `analyze_waste_risk`. The MCP aggregates all variables into one score, showing exactly what needs changing.

Ignoring beverage duration

✗ AVOID

Calculating drink amounts based only on guest count without factoring in the event's length (e.g., a 1-hour meeting vs. an afternoon reception).

✓ INSTEAD

Always use `estimate_beverage_requirements` and make sure you input the total hours of the event for accuracy.

The Right Fit

Use this MCP if your primary concern is precision planning, minimizing waste, or managing complex logistics where food quantity matters financially. It's ideal when you need to calculate ratios across multiple categories (mains, sides, drinks) using a single set of inputs. Don't use it if you are simply creating a basic menu list; this tool is for calculating *quantities*. If your problem is figuring out the best flavor pairings, or generating recipe ideas, you should look at a dedicated Recipe Generation MCP instead.

The Pain of Over-Ordering Food

Today, planning food for an event means manually juggling multiple spreadsheets. You check the

With this MCP, the process is immediate. You input the basic parameters—guest count, meal type,

guest count against general industry averages to estimate main courses, then cross-reference a second sheet for sides and starches, and finally open a third source just to guess how much soda you need. It’s time-consuming, requires guesswork, and always leads to either costly surpluses or disappointing shortages.

duration—and your agent handles all the ratio calculations across proteins, sides, and beverages instantly. You get a single, definitive order manifest that requires zero manual adjustment.

Get Perfect Portions with Leftover Ratio Calculator

Forget having to separately calculate main courses using one tool and starches using another. This MCP bundles the power of calculating optimal protein portions, alongside sides and figuring out drink volume into one seamless workflow.

The difference is that you stop managing risk with gut feelings and start planning with precise weights. You know exactly how much food you're ordering because you let your AI client run all the necessary calculations at once.

Leftover Ratio Calculator: 4 Tools

Use these tools together to calculate optimal portions, analyze risk, and ensure your event has exactly the right amount of everything.

#	TOOL	DESCRIPTION
01	`calculate_sides_and_starches`	Figures out how much rice, potatoes, and vegetables you'll need to buy or prep.
02	`analyze_waste_risk`	Checks your current plan and flags areas where food waste is most likely to happen.
03	`estimate_beverage_requirements`	Calculates the total volume of drinks required for a specific number of guests over time.
04	`calculate_main_course_portions`	Determines the optimal weight and quantity for the primary meat or protein dishes.

See It in Action

Real prompts you can use once this MCP is connected to your AI agent through Vinkius Cloud.

U How much meat do I need for 50 people at a buffet with high appetite?

For 50 guests at a buffet with a high appetite level, you will need approximately 12,500 grams of main course protein.

U What is the risk of waste for a formal dinner with 100 guests?

The waste risk level for a formal dinner with 100 guests is low, as structured service allows for better portion control.

U How many liters of water should I prepare for a 3-hour casual lunch with 20 people?

For a 3-hour event with 20 guests, you should prepare approximately 15 liters of beverages.

Frequently Asked Questions

01 **How does Leftover Ratio Calculator handle different meal types?**

It adjusts ratios based on formality. For example, a formal dinner is calculated differently than a casual buffet because of varied portioning styles and appetite levels.

02 **Can I use Leftover Ratio Calculator for non-food items?**

No, this MCP focuses specifically on calculating food weight (proteins, sides) and liquid volumes. It's designed solely for catering logistics.

03 **Does the Leftover Ratio Calculator predict guest appetite?**

It uses structured inputs regarding expected appetite levels—like 'high' or 'average'—to adjust portions, which is more accurate than a simple count.

04 **Which tool do I use for beverage planning? Leftover Ratio Calculator MCP**

You must use `estimate_beverage_requirements`. This function requires the event duration and guest count to calculate total liters needed, not just a single number.

05 **How accurate is the waste analysis from Leftover Ratio Calculator?**

It uses established industry metrics against your inputs. While it's an estimation engine, running `analyze_waste_risk` flags major inconsistencies in your plan immediately.

Go Live in 60 Seconds

Get your connection token from **cloud.vinkius.com**, then paste the endpoint URL into any MCP-compatible client.

YOUR MCP ENDPOINT

```
https://edge.vinkius.com/[TOKEN]/mcp
```

CLIENT	WHERE TO CONFIGURE
Claude AI	Profile → Customize → Connectors → "+" → Add custom connector → Paste endpoint
Cursor	Settings → Features → MCP Servers → "+ Add New MCP Server" → Type: SSE → Paste endpoint
VS Code	Ctrl/Cmd+Shift+P → "MCP: Add Server" → add `"leftover-ratio-calculator": { "url": "…" }`
Windsurf	MCP Settings → `mcp_settings.json` → Add endpoint URL
ChatGPT	Settings → Tools & plugins → Add MCP server → Paste endpoint
Gemini	Extensions → Add MCP Server → Paste endpoint URL

ASK AN AI ABOUT THIS

Let your preferred AI explain this MCP server

- Ask ChatGPT
- Ask Claude
- Ask Perplexity
- Ask Gemini
- Ask Grok

READY TO CONNECT

Leftover Ratio Calculator is live on Vinkius Cloud.

Get your connection token, paste it into your AI agent, and start building. No SDK. No deployment. Just results.

Start at cloud.vinkius.com →

vinkius.com · support@vinkius.com

INDEPENDENT PLATFORM DISCLAIMER

Vinkius is an independent platform and is not affiliated with, endorsed by, sponsored by, verified by, or otherwise authorized by Leftover Ratio Calculator. All third-party trademarks, logos, and brand names are the property of their respective owners. Their use in this document is strictly for informational purposes to identify service compatibility and interoperability.

DOCUMENT INFORMATION

Generated	June 2026
MCP Server	Leftover Ratio Calculator MCP
Server ID	`019f02c6-b16e-73a4-84d2-da72fe6dc704`
Platform	Vinkius Cloud for AI Agents
Endpoint	`https://edge.vinkius.com/{token}/mcp`

LICENSE & USAGE

This document is generated automatically by the Vinkius PDF Engine. Content reflects the MCP server configuration at the time of generation and may change as updates are deployed. For the most current information, visit vinkius.com/mcp/leftover-ratio-calculator.