

HOUSE BILL 162 | KENTUCKY NUMERACY COUNTS ACT

HB 162 Mathematics Improvement Plan

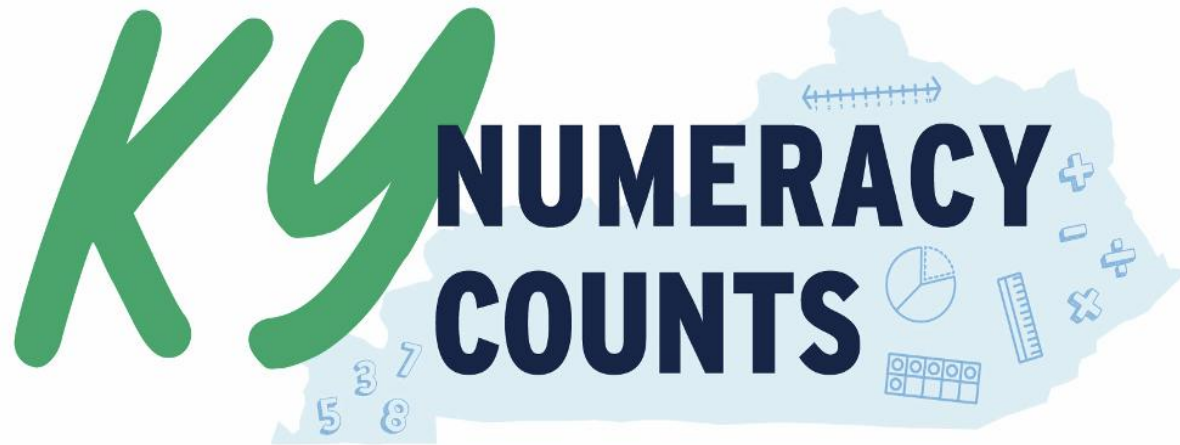
Guidance and Implementation Framework for Districts and Schools

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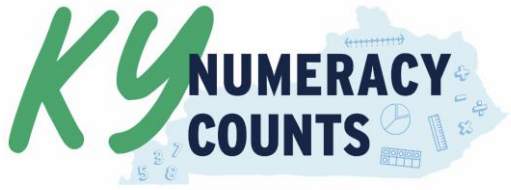


Session Objectives



By the end of today's session, participants will be equipped to:

- Clarify the statutory 30-45-60-day implementation timeline;
- Assemble effective Mathematics Improvement Teams;
- Navigate the 4 components of a Mathematics Improvement Plan (MIP);
- Develop systems to shift the MIP from compliance to drive meaningful student growth; and
- Utilize available resources for implementation and documentation.



Numeracy Counts

30-45-60 Day Cadence

First 30 Days

Administer KDE-approved universal screener to **all K-3 students** to establish baseline data.

First 60 Days

Form MIP Team, finalize target goals, select interventions, and initiate daily instruction.

First 45 Days

Administer diagnostic assessment to flagged "at-risk" students to isolate specific skill deficits.

Quarterly Cadence

Provide written progress reports to guardians (e.g., Infinite Campus parent portal).

Student Qualification & MIP Placement

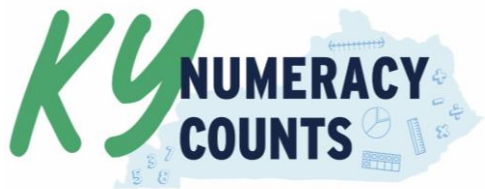


 **Universal Screener Triangulation (First 30 Days):** Administer approved screeners; flag students scoring below national/state benchmarks (typically below 20th–25th percentile).

 **Targeted Diagnostic Isolation (First 45 Days):** Administer diagnostics to isolate specific subitizing, place value, or operational fluency gaps.

 **Multi-Metric Qualitative Review:** Corroborate screener scores with Tier 1 work samples, formative checks, and attendance to rule out situational factors.

 **MIP Placement Determination:** MIP Team determines if the student requires a MIP (Tier 2/3) or targeted Tier 1 classroom differentiation.



Key Components of the Mathematics Improvement Plan (MIP) Template

Template Section	Core Required Elements	Key Leadership Considerations
Sec 1: Information & Benchmarks	Demographics, team roster, skill checks across base-ten, numeracy, and algebraic thinking.	Ensure mandatory team members (Parent, Teacher, LEA) are formally documented.
Sec 2: Implementation Plan	Target area, root cause, SMART success criteria, intervention delivery agent, dosage, and Tier level.	Specify exact evidence-based program names and CRA (Concrete/Representational/Abstract) instructional sequence.
Sec 3: Progress Review	Data graph with goal/trend lines (min. 6-8 points), response categorization, and next action steps.	Classify trajectory (Positive, Questionable, Poor) before altering intervention intensity.
Sec 4: Parent Notification	Notification log, home activity kits (ten-frames, cards), and scheduled quarterly reports.	Move beyond one-way forms to foster active family engagement in math learning.

Section 1: Demographics



Mathematics Improvement Plan

Section 1:

Student Name: Click or tap here to enter text.	DOB: Click or tap to enter a date.	Grade: Click or tap here to enter text.
School: Click or tap here to enter text.	Teacher: Click or tap here to enter text.	Parent/Guardian: Click or tap here to enter text.

Team Members* in Attendance (enter name and role):
Click or tap here to enter text.

*This team may be an existing [MTSS Student Problem Solving Team](#); however, to meet the requirements of KRS 158.8402 math improvement team members must include: the parent or guardian; general education teacher(s) of the student; a representative of the LEA who is knowledgeable about the mathematics curriculum and availability of the evidence-based mathematics resources; and any specialized certified school employees for students receiving language instruction educational programming or special education services.

Area(s) At/Above Grade-Level Benchmarks in Mathematics (Check all that apply based on approved mathematics universal screener/diagnostic assessment. Attach data.):

☐ Counting and Cardinality (K) ☐ Number and Operations Base 10 ☐ Operations and Algebraic Thinking ☐ Number and Operations Fractions (3-5)	☐ Measurement and Data ☐ Geometry ☐ Procedural Fluency ☐ Conceptual Understanding
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Area(s) At Risk for Not Meeting Grade-Level Benchmarks (Check all that apply based on approved mathematics diagnostic assessment. Attach data)

☐ Counting and Cardinality (K) ☐ Number and Operations Base 10 ☐ Operations and Algebraic Thinking ☐ Number and Operations Fractions (3-5)	☐ Measurement and Data ☐ Geometry ☐ Procedural Fluency ☐ Conceptual Understanding
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Student Information

KRS 158.8402 mandates accurate and reliable student and parent information to facilitate the MIP:

- **Student information:** Key partner in setting goals, supporting home practice and receiving quarterly updates.
- **General Education Teacher:** Primary instructor providing foundational Tier 1 context and baseline data.
- **Parent or Guardian:** Key partner in setting goals, supporting home practice and receiving quarterly updates.



Section 1: Team Composition

Mathematics Improvement Plan

Section 1:

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Required and Optional Math Improvement Team Members

KRS 158.8402 mandates a multi-disciplinary team to develop, monitor and evaluate each student's plan:

Required Team Members:

- **Parent or Guardian:** Key partner in setting goals, supporting home practice, and receiving quarterly updates.
- **General Education Teacher:** Primary instructor providing foundational Tier 1 context and baseline data.
- **LEA Representative:** District/school leader knowledgeable in HQIR and curriculum resources.

Optional Team Members:

- **Math Interventionist/Specialist:** Leads targeted direct instruction and diagnostic progress tracking.
- **Special Education Teacher:** Ensures alignment with IEP goals and specialized accommodations.
- **English Language Specialist:** Supports linguistic scaffolds for Multilingual Learners.

Section 1: Identification Areas

Mathematics Improvement Plan

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Identification Areas for Meeting and Not Meeting Grade Level Benchmarks

- **Early Numeracy:** Counting & Cardinality (K), Number & Operations in Base 10, Operations & Algebraic Thinking.
- **Intermediate Skills:** Number & Operations – Fractions, Measurement & Data analysis, and Geometry concepts.
- **Mathematical Concepts:** Procedural Fluency and Conceptual Understanding evaluated through observation and performance.

Section 2: Implementation Plan

Section 2:

Implementation Plan: (To be completed based on review of [universal screening and diagnostic data](#) and use of a [standardized problem-solving model](#). Plan may be modified as needed based on review of student progress data.):

Verified Problem Statement	Goal and Timeline	Action/Intervention Plan	Monitoring Plan
What is the targeted area of concern and possible root cause? Click or tap here to enter text. What data was used to determine the problem and root cause? Click or tap here to enter text.	What is the criterion for success? Identify the goal or benchmark the student will be expected to meet. Click or tap here to enter text. By when? Click or tap here to enter text.	What evidence-based intervention aligned to the target area will be used? Click or tap here to enter text. Who will deliver it? Click or tap here to enter text. When will it occur (frequency and duration)? Click or tap here to enter text. How will it be delivered? Click or tap here to enter text.	How will the effectiveness of the intervention be monitored over time? Monitoring method: Click or tap here to enter text. Who will be responsible? Click or tap here to enter text. How will the fidelity of implementation be monitored? Click or tap here to enter text. Who will be responsible? Click or tap here to enter text.

Verified Problem Statement Goals and Timeline

- **Target Identification:** Strategic and measurable skills- specificity is crucial.
- **Root Cause Analysis:** Narrowed lens that allows for micro analysis of student performance; also allows for a macro look at systems of instruction.
- **Foundational Data:** Reliable assessment structures that include universal screeners, diagnostic, HQIR assessments and classroom qualitative data.
- **Success Criterion:** Clear outline for all stakeholders of what the student will be expected to do.
- **Benchmark:** Determination of what data will be used to monitor the success criterion.
- **Reasonable Timeline:** Considering the success criteria, determine a reasonable and accessible timeline for both students and facilitators of the intervention.

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		How will it be delivered? Click or tap here to enter text.	Who will be responsible? Click or tap here to enter text.

Action/Intervention Plan and Monitoring

- **Evidence Based Intervention:** Determination of invention program or protocols to strategically move students towards the established goal and success criteria.
- **Delivery and Method:** Clarity on who will be providing clear and consistent support, and the frequency and duration of delivery.
- **Intervention Effectiveness and Accountability:** Clear accountability systems for monitoring intervention effectiveness and designating responsibility of who will be accountable to the MIP.
- **Intervention Fidelity and Accountability:** Clear accountability systems for monitoring intervention fidelity and designating responsibility of who will be accountable to the MIP.

Section 2: Implementation Plan

Intervention Start Date:	Duration of Intervention	Frequency of Intervention	Frequency of Progress Monitoring
Click or tap to enter a date.	Click or tap here to enter text.	Click or tap here to enter text.	Click or tap here to enter text. KDE recommendation: Tier 2: every two weeks or at least monthly; Tier 3: weekly
At what Tier will the problem be addressed? ☐ Tier 1 – Differentiated Support ☐ Tier 2 – Supplemental Support ☐ Tier 3 – Intensive Support			

Intervention Logistics

- **Intervention Timeline:** Establishing a clear timeline with all stakeholders for the initiation of intervention, duration as related to the goals set and the established frequency to meet those goals.
- **Progress Monitoring Frequency:** Establishing a clear timeline with all stakeholders for the frequency of progress monitoring to achieve determined goal.
- **Tier Determination:** Agreed Tier placement by the Mathematics Improvement Team.



Tier Clarification from KyMTSS

Key Features



Tier 1

The foundational or universal level of support. *All* students receive high-quality, evidence-based instruction aligned to grade-level standards, schoolwide behavioral expectations and key social-emotional competencies. In sustainable systems, at least 80% of students have their needs met through this universal level of support.



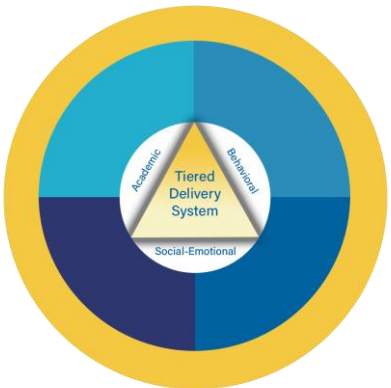
Tier 2

The targeted or supplemental level of support. Intended for *some* students who require more opportunities for practice and feedback or enrichment beyond Tier 1. In sustainable systems, 10-15% of students access this level of support in addition to the universal level. Tier 2 supports are often provided to groups of students with similar targeted needs.

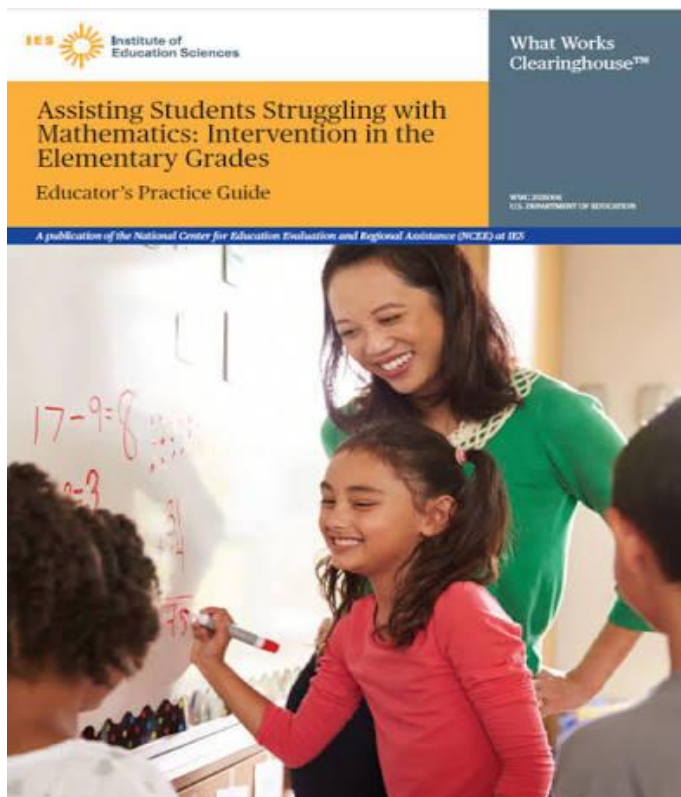


Tier 3

The most intensive level of support. It is intended for students with the most significant and persistent needs extending well beyond the reach of the Tier 1 level. In effective systems, 3-5% of students need access to this level of support. Tier 3 is characterized by increased intensity and individualization of instruction and targeted supports.



Evidence-Based Math Interventions



Institute of Education Sciences- Practice Guide High-Leverage

Recommendations:

1. Provide systematic instruction during intervention to develop student understanding of mathematical ideas.
2. Teach clear and concise mathematical language and support students' use of the language to help students effectively communicate their understanding of mathematical concepts.
3. Use a well-chosen set of concrete and semi-concrete representations to support students' learning of mathematical concepts and procedures.
4. Use the number line to facilitate the learning of mathematical concepts and procedures, build understanding of grade-level material, and prepare students for advanced mathematics.
5. Provide deliberate instruction on word problems to deepen students' mathematical understanding and support their capacity to apply mathematical ideas.
6. Regularly include timed activities as one way to build fluency in mathematics.



Section 3: Progress Review

Section 3:

Progress Review: (To obtain a reliable estimate of the student's response to the intervention, progress monitoring data should be collected for a minimum of six to eight data points. Every time the progress monitoring probe is administered, ensure the score is recorded and graphed.)

Review Date: Click or tap to enter a date. (Attach graphed data with goal line and trend line at each data review.)

Positive Response to the Intervention	Questionable Response to the Intervention	Poor Response to the Intervention
☐ The trend line and goal line are the same or the trend line is steeper than the goal line. Student on track to meet their goal. ☐ Continue intervention with current goal and re-evaluate in another 6-8 data points. Student met or exceeded their goal. ☐ Plan to fade the support; and return to Tier 1 or Tier 2; or ☐ Consider a more ambitious goal if set below grade-level benchmark; or ☐ Revise intervention to focus on additional skills needed in order to meet grade-level goals. Follow-Up Review Date: Click or tap to enter a date. Notes:	☐ Data is highly variable, with significant changes from data point to data point. There is not a clear pattern of the student's response to the intervention due to significant inconsistencies in the data. Fidelity: Consider if issues with one or more of confounding factors contributed to this data pattern: ☐ Delivery ☐ Quality ☐ Student engagement/behavior ☐ Attendance ☐ Scheduling conflicts ☐ Other ☐ Yes, one or more confounding factors were present that impacted implementation. Employ strategies to improve implementation integrity of the current intervention. Collect data for 4 more data points and assess impact. OR ☐ No confounding factors were present, and intervention was implemented as designed. Increase intensity of current intervention for 4 data points and assess impact. Follow-Up Review Date: Click or tap to enter a date. Notes:	☐ Trend line is flat or falling below the goal line and gap is widening. Intervention is not working and needs a change. Consider fidelity and fit. Fidelity: Was the intervention implemented as intended? ☐ No, employ strategies to improve implementation integrity. ☐ Yes, consider fit and begin a new form to document the change. Fit: Is the intervention/assessment tool aligned to the identified targeted need? Potential Actions: ☐ Change to the intervention: ☐ Increase duration. ☐ Change in interventionist. ☐ Decrease group size. ☐ Change in instructional delivery. and/or ☐ Change in type of intervention. ☐ Was the problem identified correctly? Return to problem-analysis. ☐ Was the progress monitoring tool the right match for the intervention? Appropriate match for the student? Sensitive to change?

Data Driven Review

- **Purpose:** To obtain reliable estimates of student growth, progress monitoring data must be collected across a minimum of 6 to 8 data points.
- **Cadence:** Scores are recorded and graphed alongside clear goal lines and trend lines at every official review cycle.



Section 3: Progress Review

Review Performance and Next Steps

Response Pattern	Data Criteria	Required Action Step
Positive Response	Trend line meets or exceeds the goal line.	Continue plan, consider fading support, or set more ambitious goals.
Questionable Response	Highly variable data from point to point.	Evaluate confounding fidelity factors (attendance, behavior, delivery).
Poor Response	Trend line flat or falling below goal line.	Adjust intervention (increase duration, reduce group size, or change type).



Section 4: Parent Engagement

Building Transparent Communication and a Meaningful Partnership

Documenting parental participation and ensuring ongoing updates on student mathematics growth.

- **Attendance Tracking:** Records parent/guardian attendance in problem-solving meetings.
- **Home Support Strategies:** Provides actionable resources for reinforcing math at home. Sources include [KY Standards Family Guides](#) and HQIR specific resources to support families in engaging in mathematics concepts at home.
- **Progress Schedule:** Mandates 4 written quarterly progress reports delivered to parents.



Aligning the Mathematics Improvement Plan with KyMTSS Framework Focus on System Clarity



1. Problem Definition

Identify target math areas (e.g., addition within 10) and write verified problem statements using diagnostic data.



2. Problem Analysis

Perform root-cause analysis (procedural vs conceptual gap) while ruling out attendance or instruction gaps.



3. Plan & Delivery

Formulate strategic goals, select evidence-based interventions, specify dosage (min/day), and define effectiveness and fidelity checks.



4. Progress Evaluation

Review graphed data after 6–8 points. Evaluate response as Positive, Questionable, or Poor to adapt support.



Common Challenges & Best Practices

Potential Challenge	Compliance Only–Mindset (Avoid)	Best–Practice Solution (Target)
Intervention Description	Vague labels like "small group math instruction."	Name specific program and dosage (e.g., <i>Bridges Intervention Vol. 2</i> , min/day, 4 days/wk).
Plan Creation	Isolated teacher completing paperwork alone.	Leverage existing KyMTSS team meetings with parent, teacher, and rep present.
Progress Monitoring	Generic weekly quizzes unrelated to target skill.	Utilize weekly targeted skill probes graphed against an explicit goal and trend line.
Parent Engagement	One-way signature forms sent home in backpacks.	Provide family math kits (ten-frames, deck cards) and share quarterly updates in Infinite Campus. Summer Support: Mathematics Resources - Kentucky Department of Education



Common Challenges & Best Practices

Potential Challenge	Compliance Only-Mindset (Avoid)	Best-Practice Solution (Target)
Tight 60-Day Timeline	Treating MIP as paperwork to quickly check off.	Establish clear screening schedules in Aug/Sept; utilize IC templates to streamline team collaboration.
Isolated Intervention	Intervention disconnected from core classroom math.	Align Tier 2/3 evidence-based intervention directly with Tier 1 Kentucky Academic Standards (KAS) and district selected HQIR.
Static Goals	Filing the plan away without regular review.	Integrate MIP progress reviews into weekly PLC agendas and bi-weekly data chats.
Staffing Constraints	Delegating intervention entirely to non-certified staff.	Prioritize certified math interventionists and trained teachers for highest-need Tier 3 instruction.



Moving From Compliance to a Systems Driven Process



Data-Driven Culture

Shift focus from filling forms to understanding individual student mathematical thinking and diagnostic insights and making a cohesive plan for student growth and achievement.



Cohesive Systems

Integrate Mathematics Improvement Plan seamlessly into existing KyMTSS structures, eliminating duplicate documentation across systems.



Authentic Partnership

Engage parents as active co-educators by sharing understandable, actionable math strategies for home practice.

Exemplar Case Study: 2nd Grade Student



Student: Maya (Grade 2)

Universal Screener: 14th Percentile (At Risk)

Diagnostic Breakdown:

- **Strengths:** Rote counting to 100, single-digit addition facts (0–10).
- **Deficit Area:** Place value understanding & two-digit regrouping (Base-Ten).

Root Cause: Lack of concrete-representational understanding of tens and ones grouping- unclear of how to model with manipulatives and relate those to representations and abstract problems

Targeted Intervention

Reasonable Goal with Timeline: Given two-digit addition problems, Maya will correctly regroup using base-ten models with 80% accuracy over 4 consecutive probes. Will re-evaluate progress in 6-8 weeks.

Intervention Routine: Using an evidence-based intervention source strategically practice with base-ten blocks to show regrouping strategies. Moving to representational and then abstract modeling as mastery grows.

Frequency and Duration; 30 mins/day, 5 days/week.

Progress Monitoring: Weekly computation probe delivered, along with monitoring of conceptual understanding through observation.



Infinite Campus Integration

Starting in the 2026-2027 school year, KDE provides the fillable "Kentucky Mathematics Improvement Plan" form directly within Infinite Campus (IC).

Key Advantages:

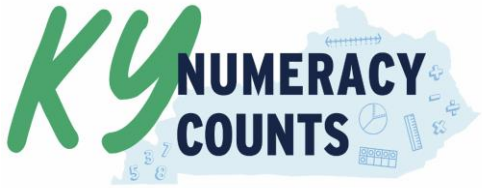
- **Interconnectivity:** MIP follows transient students seamlessly across Kentucky districts.
- **Parent Portal:** Real-time guardian access to active plans and quarterly progress updates.
- **State Reporting:** District leaders generate aggregate efficacy and compliance reports.



Statute References and Source Material

This document synthesizes guidelines and legal mandates from the following official state and national resources:

- **Kentucky Revised Statute 158.8402:** Multitiered system of supports for mathematics — Improvement plan and accelerated interventions. [Link to KRS 158.8402 Statute](#)
- **Kentucky Department of Education - Numeracy Counts Landing Page:** Official state repository for approved screeners, diagnostics, and Infinite Campus forms. [Link to KDE Numeracy Counts Webpage](#)
- **House Bill 162 (2024) Implementation Timeline:** Detailed milestone timeline released by KDE Office of Teaching and Learning. [Link to HB 162 Implementation PDF](#)
- **Appalachia Comprehensive Center at Westat:** Technical assistance project supporting KDE in co-developing the MIP Implementation Guide. [Link to Appalachia CC Project Summary](#)
- **KYstandards Numeracy Counts Overview:** Implementation updates and instructional alignment guidance. [Link to KYstandards News](#)
- **AdvanceKentucky - Numeracy Counts Act Guidance:** Middle and primary school alignment strategies. [Link to AdvanceKentucky Guidance](#)



Charting the Course for Mathematics Achievement

Consider the information shared in this office hours setting and reflect on the following:

- What is an immediate next step for your district/school to prepare your teams for Mathematics Improvement Plan implementation?
- Within the next 30 days, what are your most important actions to ensure all stakeholders feel equipped to actively contribute to the creation and maintenance of MIPs?
- How can we continue to support you during this implementation journey?

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 - ☐ P3
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