MA.1.AR.2.1

Overarching Standard: MA.1.AR.2 *Develop an understanding of the relationship between addition and subtraction.*

Benchmark of Focus

MA.1.AR.2.1: Restate a subtraction problem as a missing addend problem using the relationship between addition and subtraction.

Example: The equation 12 – 7 = ? can be restated as 7 + ? = 12 to determine the difference is 5.

Benchmark Clarifications

Clarification 1: Addition and subtraction are limited to sums within 20 and related subtraction facts.

Related Benchmark/Horizontal Alignment

- MA.1.NSO.2.1/2.2
- MA.1.AR.1.2

Vertical Alignment

Previous Benchmarks	Next Benchmarks
• MA.K.AR.2.1	• MA.2.AR.2.2

Terms from the K-12 Glossary

- Expression
- Equation

Purpose and Instructional Strategies

The purpose of this benchmark is to get students thinking about the relationships between addition and subtraction. In Kindergarten, students explored equations and developed an understanding of the equal sign by explaining why addition and subtraction equations are true using objects and drawings.

- Instruction may present equations in different forms such as $a + b = c$ or $c = a + b$.
- Instruction may include students using a related addition fact or a part-part-whole mat to help them find the missing addend in a subtraction equation.

Common Misconceptions or Errors

- Students may not recognize how an addition problem can help them solve a subtraction problem. Guided practice with related facts may be helpful for students who do not recognize this.

- Students may solve the equation and look for the solution in the answer choices rather than relying on reasoning.

Questions to ask students:

- **What strategy did you use to determine the unknown?**
  - Sample answer that indicates understanding*: Student can explain how they solved the problem by adding/counting up to find the answer (think addition to subtract) or rewrite the subtraction equation as an addition sentence to make it easier to solve*

- **How can you use addition to help you solve the expression 11 - 7?**
  - Sample answer that indicates understanding: *Student explains how they can use the "think addition" strategy to solve, 7 + ? = 11.*

Instructional Tasks

Instructional Task 1

Katina has 14 grapes. She gives 8 of them to her brother Kevin. What addition problem could help Katina figure out how many grapes she has left for herself?

Instructional Items

Instructional Item 1

Which addition equation can help you determine $10 - 3$?

a. $3 + 10 = 13$
b. $5 + 3 = 8$
c. $7 + 3 = 10$
d. $11 + 3 = 14$

Instructional Item 2

Complete the part-part-whole mat to help you determine $11 - 5$.

Part	**Part**
Whole	

Additional Resources:

CPALMS Resources

Teaching the Think Addition Strategy for Subtraction

Resources/Tasks to Support Your Child at Home:
Play a game using half of a plastic egg and some sort of small objects like beans. Put some beans on the table and have your child count them. Then hide some of the beans under the egg. Have him/her write an addition and a subtraction problem to match what happened.

Think Addition Game Using Bar Models

Rewrite addition equations as related subtraction equations.

Rewrite addition equations as subtraction equations with a missing addend: What goes with this part to make the total?

Use Think Addition to Subtract