# Lesson 18: Diagramas y ecuaciones para problemas en palabras

### Standards Alignments

|  |  |
| --- | --- |
| Addressing | 3.OA.D.8 |
| Building Towards | 3.OA.D.8 |

### Teacher-facing Learning Goals

* Relate diagrams and equations to two-step word problems.

### Student-facing Learning Goals

* Conectemos diagramas y ecuaciones con situaciones.

### Lesson Purpose

The purpose of this lesson is for students to relate diagrams and equations to two-step word problems.

In grade 2, students interpreted tape diagrams for one- and two-step problems involving addition and subtraction. Earlier this year, they did the same with one-step word problems involving multiplication. They also learned that a question mark, a blank line, or a box could be used to represent an unknown quantity in an equation.

In this lesson, students connect tape diagrams and equations with a symbol standing for the unknown quantity to two-step word problems. The work of this lesson prepares students to write equations with a letter standing for the unknown quantity and solve two-step problems, using a diagram if it helps them.

### Access for:

###  Students with Disabilities

* Engagement (Activity 1)

###  English Learners

* MLR8 (Activity 1)

### Instructional Routines

Card Sort (Activity 1), Notice and Wonder (Warm-up)

### Materials to Gather

* Sticky notes: Activity 2
* Tools for creating a visual display: Activity 2

### Materials to Copy

* Card Sort: Situations, Equations, and Diagrams, Spanish (groups of 4): Activity 1

### Lesson Timeline

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| --- | --- |
| Warm-up | 10 min |
| Activity 1 | 15 min |
| Activity 2 | 20 min |
| Lesson Synthesis | 10 min |
| Cool-down | 5 min |

### Teacher Reflection Question

Students previously used tape diagrams to represent and solve one-step addition, subtraction, and multiplication problems. How are they leveraging that knowledge in this lesson on two-step problems?

## Cool-down

(to be completed at the end of the lesson) 5min

¿Cuál ecuación corresponde?

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### Student-facing Task Statement

Andre tenía 451 chaquiras. 125 chaquiras eran azules. 223 chaquiras eran rosadas. El resto de las chaquiras eran amarillas. ¿Cuántas chaquiras eran amarillas?

¿Cuál ecuación corresponde a la situación? Explica cómo razonaste.

1. $451+125+223=?$
2. $?+125+223=451$
3. $?=451+125–223$

### Student Responses

B. Sample response: The 125 and 223 were just part of the total of 451, so the missing number should be one of the numbers that add up to 451.