# Lesson 21: Solve Problems Using the Four Operations

### Standards Alignments

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

### Teacher-facing Learning Goals

* Represent two-step word problems using equations with a letter standing for the unknown quantity.
* Solve two-step word problems using the four operations.

### Student-facing Learning Goals

* Let’s represent and solve problems using all four operations.

### Lesson Purpose

The purpose of this lesson is for students to represent and solve two-step word problems using the four operations.

Previously, students have represented and solved two-step word problems using addition, subtraction, multiplication, and division with smaller numbers. In this lesson, students continue to deepen their understanding of two-step word problems as they consider what they need to know to solve problems and think about the relationship between numbers in a problem. Students write equations with a letter standing for the unknown quantity to represent these problems.

This lesson has a Student Section Summary.

### Access for:

###  Students with Disabilities

* Action and Expression (Activity 1)

###  English Learners

* MLR8 (Activity 2)

### Instructional Routines

Notice and Wonder (Warm-up)

### Lesson Timeline

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

### Teacher Reflection Question

Check in with your norms and routines. Are they promoting engagement from all your students? Are there any adjustments you might make so that all students do math tomorrow?

## Cool-down

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

Apples at the Farm Stand

### Standards Alignments

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

### Student-facing Task Statement

A booth at the apple orchard has 225 apples. 165 apples are not in baskets. The rest of the apples are in 6 baskets with the same number of apples in each basket. How many apples are in each basket?

1. Write an equation to represent this situation. Use a letter for the unknown quantity.
2. Solve the problem. Explain or show your reasoning.

### Student Responses

1. $165+\left(6×n\right)=225$ or $225−165=\left(6×n\right)$ or $\left(225−165\right)÷6=n$
2. 10 apples. Sample response: I subtracted 165 from 225 to find out how many apples were in baskets. It was 60 apples. I know that $6×10$ is 60, so there would be 10 apples in each basket.