“Put Together” and “Take Apart” Problems

Previously, children solved “add to” and “take from” problems within 100. Children will now solve “put together” and “take apart” problems that include an unknown variable. Children will use manipulatives, drawings, and counting on and back. Children will apply these skills in later lessons when solving comparison and two-step problems.

Vocabulary

Distribute Base Ten Blocks. Present the problem—
Lenny’s mom puts 18 apples and 9 pears in a bowl. How many pieces of fruit are in the bowl?

■ Ask: What addition equation matches the problem? [18 + 9 = __]
■ Say: We combine the addends 18 and 9 to get the sum. We can count on to solve. Use the Base Ten Blocks to show 18 apples.
■ Say: Now show the pears. [9]
Have children count out 9 units.
■ Say: Count on from 18 to add 9.
■ Ask: What is the sum of 18 and 9? [27]
■ Say: There are 27 pieces of fruit in all.
■ Addends are numbers that are added together. The sum is the result of adding two or more numbers.

Fred places 24 apples and 32 pears on a table for the party. How many pieces of fruit are on the table?
**Set the Stage**

**Engage**  
**WHOLE CLASS**

Present children with this problem and the drawing—
*Abby had 27 crackers. She ate some. Then she had 15. How many crackers did Abby eat?*

**Ask:** What equation can we use to show the problem? [27 − __ = 15]

Elicit that the total number of crackers and the amount left is known. The amount that Abby ate is the unknown.

**Ask:** How can we use counting back to solve the equation? How many items did you cross out while counting back? [12]

**Ask:** How many crackers did Abby eat? [12 crackers]

Explain that you can also count up from 15 to solve the problem. Have children solve using this method.

---

**Warm-Up**

Use this short thinking exercise to jump-start the instructional session.

**Name**  
**Answer Key**

2  
Mike started with 9 beans and then covered some.  

How many beans are covered?

**ANSWER:** 3 beans

**COMMENTS & EXTENSIONS:** Teachers can learn a lot about students’ thinking by asking them to think out loud. How will students solve this one? Will they subtract 6 from 9 or start at 6 and count up to 9?

---

**Foundation Skill Practice**

Use this VersaTiles® activity to help children activate their prior knowledge.

**Something Is Missing**

Find how many more make 10.

1. 

2. 

3. 

4. 

**Find the missing number.**

5. 9 + ___ = 13  

6. 18 − ___ = 12  

7. ___ − 8 = 7  

8. 23 + 10 = ___  

9. 58 − 10 = ___  

10. 12 − ___ = 3  

11. 5 + ___ = 15  

12. 18 − ___ = 10

**Answer Box**

- A: 33  
- B: 8  
- C: 10  
- D: 4  
- E: 15  
- F: 9  
- G: 6  
- H: 5  
- I: 48  
- J: 3  
- K: 1  
- L: 7

**VersaTiles® student book, page 4**

**Online resources available at hand2mind.com/hosnumbergr2**
Explore & Explain

**Whole Class**

Present the problem—

*There are 33 girls and 23 boys going on a field trip. How many will go in all?*

- **Ask:** What addition equation will match the problem?
  - \[33 + 23 = \_\]

Elicit that you are adding two addends to get the sum of the children going on the trip.

- **Say:** *Let’s use Base Ten Blocks to show the girls.*
  
  Point out that counting 2 rods and 3 units is easier than counting out 23 units.

- **Ask:** What do you think is the next step?
  
  Elicit that children should count out 23 to show the boys.

- **Ask:** What do you think is the next step? [combine the sets]

Explain that you could combine the groups and start counting from one, but it is easier to count on from one group.

- **Say:** Let’s count on from 33. Place 1 rod from this set with the other set. How many do we have? [43]

- **Say:** Combine the next rod from this set with the other set. How many do we have? [53]

- **Say:** Count on for the units. [54, 55, 56]

- **Ask:** How many children went on the trip?

  Elicit that when you put the group of 33 together with the group of 23, the sum is 56.

**Small Groups**

Prepare ahead: Children will need Base Ten Blocks.

Children will complete different subtypes of “put together” and “take apart” word problems. First, children will model and solve for unknown quantities. Then, children will create an addition equation of their own from information given in a word problem. Finally, children will draw and write an equation for a subtraction problem.

---

**Materials**

- Base Ten Blocks
**Put Together, Take Apart**

Solve.

1. **The students sold 57 tickets on Friday.**
   • They sold 39 tickets on Saturday.
   • How many tickets were sold on both days?

2. **A total of 66 people bought tickets early.**
   • 57 people turned tickets in at the door.
   • How many people did not show up?

3. **The school printed 88 programs.**
   • There were 16 programs left.
   • How many programs were given out?

4. **Class 2A sold 26 bags of popcorn.**
   • Class 2B sold 37 bags of popcorn.
   • How many bags of popcorn were sold in all?

5. **There were 15 green hats and 19 yellow hats.**
   • How many hats were there in all?

6. **There were 59 children in the audience.**
   • There were 28 boys.
   • How many girls were in the audience?

7. **There were 17 boys and 25 girls dancing in Scene 1.**
   • How many students danced in Scene 1?

---

**Literature Connection**

Read a book that models “putting together” and “taking apart,” such as *Rooster’s Off to See the World* by Eric Carle. Rooster has decided to see the world. As he travels, other animals join him (put together). Later, the animals realize Rooster had made no plans for food or shelter and they begin to leave for home (take apart).

The images at the top of certain pages assist children in seeing the patterns of addition and subtraction.