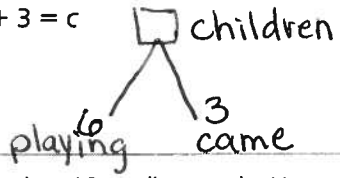
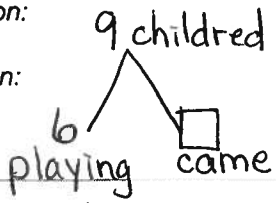
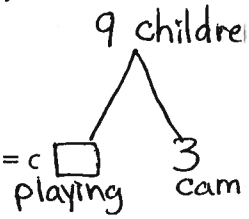
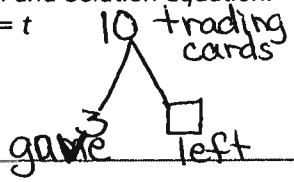
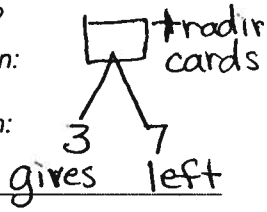
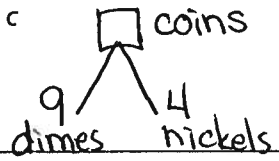
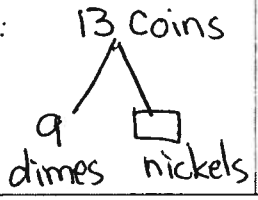
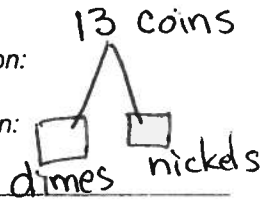
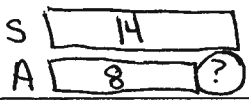
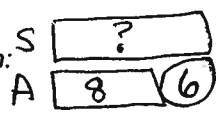
Problem Types

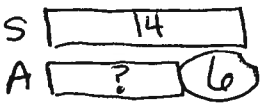
This table shows how problem types are incorporated across the grades. A specific grade lev problem types chart can be found at the back of each Student Book or Teacher Edition.

	Result Unknown	Change Unknown	Start Unknown
Add to	Six children were playing tag in the yard. Three more children came to play. How many children are playing in the yard now? *Situation and Solution Equation:* $6 + 3 = c$ 	Six children were playing tag in the yard. Some more children came to play. Now there are 9 children in the yard. How many children came to play? *Situation Equation:* $6 + c = 9$ *Solution Equation:* $9 - 6 = c$ 	Some children were playing tag in the yard. Three more children came to play. Now there are 9 children in the yard. How many children were in the yard at first? *Situation Equation:* $c + 3 = 9$ *Solution Equation:* $3 + c = 9$ or $9 - 3 = c$ 
Take from	Jake has 10 trading cards. He gave 3 to his brother. How many trading cards does he have left? *Situation and Solution Equation:* $10 - 3 = t$ 	Jake has 10 trading cards. He gave some to his brother. Now Jake has 7 trading cards left. How many cards did he give to his brother? *Situation Equation:* $10 - t = 7$ *Solution Equation:* $10 - 7 = t$ 	Jake has some trading cards. He gave 3 to his brother. Now Jake has 7 trading cards left. How many cards did he start with? *Situation Equation:* $t - 3 = 7$ *Solution Equation:* $7 + 3 = t$ 

	Total Unknown	Addend Unknown	Other Addend Unknown
Put Together/ Take Apart	Ana put 9 dimes and 4 nickels in her pocket. How many coins did she put in her pocket? *Situation and Solution Equation:* $9 + 4 = c$ 	Ana put 13 coins in her pocket. Nine coins are dimes and the rest are nickels. How many are nickels? *Situation Equation:* $13 = 9 + n$ *Solution Equation:* $13 - 9 = n$ 	Ana put 13 coins in her pocket. Some coins are dimes and 4 coins are nickels. How many coins are dimes? *Situation Equation:* $13 = d + 4$ *Solution Equation:* $13 - 4 = d$ 

	Difference Unknown	Bigger Unknown	Smaller Unknown
Compare[1]	Aki has 8 apples. Sofia has 14 apples. How many more apples does **Sofia** have than Aki? *Solution Equation:* $8 + a = 14$ or $14 - 8 = a$	**Leading Language** Aki has 8 apples. **Sofia** has **6 more** apples than Aki. How many apples does Sofia have? *Solution Equation:* $8 + 6 = a$	**Leading Language** Sofia has 14 apples. **Aki** has **6 fewer** apples than Sofia. How many apples does Aki have? *Solution Equation:* $14 - 6 = a$ or $6 + a = 14$
	Aki has 8 apples. Sofia has 14 apples. How many **fewer** apples does **Aki** have than Sofia? *Solution Equation:* $8 + a = 14$ or $14 - 8 = a$ 	**Misleading Language** Aki has 8 apples. **Aki** has **6 fewer** apples than Sofia. How many apples does Sofia have? *Solution Equation:* $8 + 6 = a$ 	**Misleading Language** Sofia has 14 apples. **Sofia** has **6 more** apples than Aki. How many apples does Aki have? *Solution Equation:* $14 - 6 = a$ or $6 + a = 14$

The comparing sentence can always be said in two ways: One uses more, and the other uses fewer. Misleading anguage suggests the wrong operation. For example, it says *Aki has 6 fewer apples than Sofia*, but you have o add 6 to Aki's 8 apples to get 14 apples.



	Unknown Product	Group Size Unknown	Number of Groups Unknown
Equal Groups	Seth has 5 bags with 2 apples in each bag. How many apples does Seth have in all? *Solution Equation:* $5 \cdot 2 = n$	Seth has 5 bags with the same number of apples in each bag. He has 10 apples in all. How many apples are in each bag? *Situation Equation:* $5 \cdot n = 10$ *Solution Equation:* $10 \div 5 = n$	Seth has some bags of apples. Each bag has 2 apples in it. He has 10 apples in all. How many bags of apples does Seth have? *Situation Equation:* $n \cdot 2 = 10$ *Solution Equation:* $10 \div 2 = n$
Arrays[2]	Jenna has 2 rows of stamps with 5 stamps in each row. How many stamps does Jenna have in all? *Solution Equation:* $2 \cdot 5 = s$	Jenna has 2 rows of stamps with the same number of stamps in each row. She has 10 stamps in all. How many stamps are in each row? *Situation Equation:* $2 \cdot s = 10$ *Solution Equation:* $10 \div 2 = s$	Jenna has a certain number of rows of stamps. There are 5 stamps in each row. She has 10 stamps in all. How many rows of stamps does Jenna have? *Situation Equation:* $r \cdot 5 = 10$ *Solution Equation:* $10 \div 5 = r$
Area	The floor of the kitchen is 2 meters by 5 meters. What is the area of the floor? *Solution Equation:* $2 \cdot 5 = a$	The floor of the kitchen is 2 meters long. The area of the floor is 10 square meters. How wide is the floor? *Situation Equation:* $2 \cdot s = 10$ *Solution Equation:* $10 \div 2 = s$	The width of the kitchen is 5 meters long. The area of the floor is 10 square meters. What is the length of the floor? *Situation Equation:* $r \cdot 5 = 10$ *Solution Equation:* $10 \div 5 = r$
Compare	Katie picked 5 times as many flowers as Benardo. Benardo picked 2 flowers. How many flowers did Katie pick? *Solution Equation:* $5 \cdot 2 = k$	Katie picked 5 times as many flowers as Benardo. Katie picked 10 flowers. How many flowers did Bernardo pick? *Situation Equation:* $5 \cdot b = 10$ *Solution Equation:* $10 \div 5 = b$	Katie picked 10 flowers. Bernardo picked 2 flowers. How many times as many flowers did Katie pick as Bernardo? *Situation Equation:* $m \cdot 2 = 10$ *Solution Equation:* $10 \div 2 = m$

Array problems can also be stated using the number of rows and columns in the array: The apples in the grocery window are in 3 rows and 6 columns. How many apples are there?

Note: All of the division situations could also have the multiplication equation as the solution equation because you can solve division by finding the unknown factor.