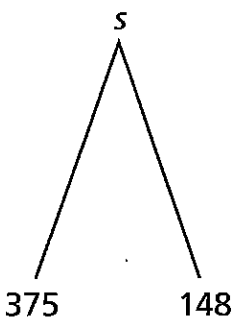
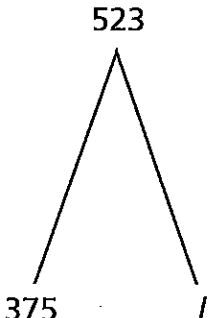
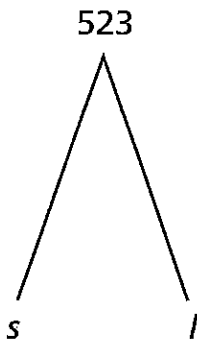


	Total Unknown	Addend Unknown	Both Addends Unknown
<b>Put Together/ Take Apart</b>	<p>A clothing store has 375 shirts with short sleeves and 148 shirts with long sleeves. How many shirts does the store have in all?</p> <p><i>Math drawing:</i></p>  <p><i>Situation and solution equation:</i> <math>375 + 148 = s</math></p>	<p>Of the 523 shirts in a clothing store, 375 have short sleeves. The rest have long sleeves. How many shirts have long sleeves?</p> <p><i>Math drawing:</i></p>  <p><i>Situation equation:</i> <math>523 = 375 + l</math></p> <p><i>Solution equation:</i> <math>l = 523 - 375</math></p>	<p>A clothing store has 523 shirts. Some have short sleeves and some have long sleeves. How many of the shirts have short sleeves and how many have long sleeves?</p> <p><i>Math drawing:</i></p>  <p><i>Situation equation</i> <math>523 = s + l</math></p>

*Problem Types continued*

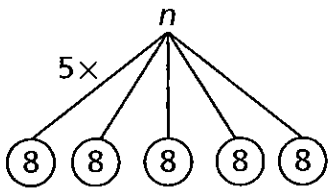
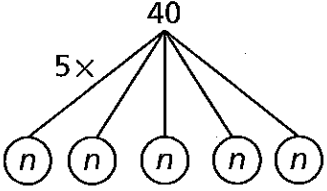
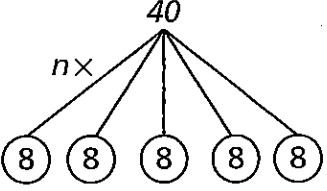
# Problem Types

## Addition and Subtraction Problem Types

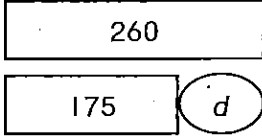
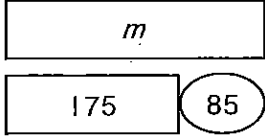
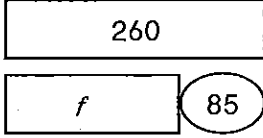
	Result Unknown	Change Unknown	Start Unknown
<b>Add to</b>	<p>Aisha had 274 stamps in her collection. Then her grandfather gave her 65 stamps. How many stamps does she have now?</p> <p><i>Situation and solution equation:<sup>1</sup></i></p> $274 + 65 = s$	<p>Aisha had 274 stamps in her collection. Then her grandfather gave her some stamps. Now she has 339 stamps. How many stamps did her grandfather give her?</p> <p><i>Situation equation:</i></p> $274 + s = 339$ <p><i>Solution equation:</i></p> $s = 339 - 274$	<p>Aisha had some stamps in her collection. Then her grandfather gave her 65 stamps. Now she has 339 stamps. How many stamps did she have to start?</p> <p><i>Situation equation</i></p> $s + 65 = 339$ <p><i>Solution equation:</i></p> $s = 339 - 65$
<b>Take from</b>	<p>A store had 750 bottles of water at the start of the day. During the day, the store sold 490 bottles. How many bottles did they have at the end of the day?</p> <p><i>Situation and solution equation:</i></p> $750 - 490 = b$	<p>A store had 750 bottles of water at the start of the day. The store had 260 bottles left at the end of the day. How many bottles did the store sell?</p> <p><i>Situation equation:</i></p> $750 - b = 260$ <p><i>Solution equation:</i></p> $b = 750 - 260$	<p>A store had a number of bottles of water at the start of the day. The store sold 490 bottles of water. At the end of the day 260 bottles were left. How many bottles did the store have to start with?</p> <p><i>Situation equation:</i></p> $b - 490 = 260$ <p><i>Solution equation:</i></p> $b = 260 + 490$

<sup>1</sup>A situation equation represents the structure (action) in the problem situation. A solution equation shows the operation used to find the answer.

## Multiplication and Division Problem Types

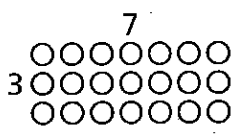
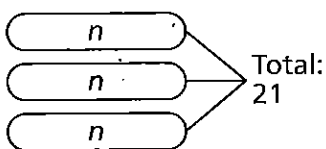
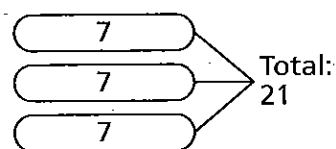
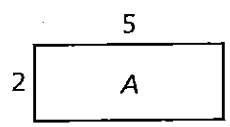
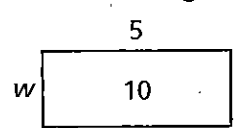
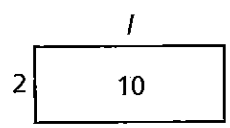
	Unknown Product	Group Size Unknown	Number of Groups Unknown
Equal Groups	<p>A teacher bought 5 boxes of markers. There are 8 markers in each box. How many markers did the teacher buy?</p> <p><i>Math drawing:</i></p>  <p><i>Situation and solution equation:</i> <math>n = 5 \cdot 8</math></p>	<p>A teacher bought 5 boxes of markers. She bought 40 markers in all. How many markers are in each box?</p> <p><i>Math drawing:</i></p>  <p><i>Situation equation:</i> <math>5 \cdot n = 40</math></p> <p><i>Solution equation:</i> <math>n = 40 \div 5</math></p>	<p>A teacher bought boxes of 8 markers. She bought 40 markers in all. How many boxes of markers did she buy?</p> <p><i>Math drawing:</i></p>  <p><i>Situation equation:</i> <math>n \cdot 8 = 40</math></p> <p><i>Solution equation:</i> <math>n = 40 \div 8</math></p>

Addition and Subtraction Problem Types (continued)

	Difference Unknown	Greater Unknown	Smaller Unknown
Compare	<p>At a zoo, the female black bear weighs 175 pounds. The male black bear weighs 260 pounds. How much more does the male black bear weigh than the female black bear?</p> <p>At a zoo, the female black bear weighs 175 pounds. The male black bear weighs 260 pounds. How much less does the female black bear weigh than the male black bear?</p> <p><i>Math drawing:</i></p>  <p><i>Situation equation:</i>  <math>175 + d = 260</math> or  <math>d = 260 - 175</math></p> <p><i>Solution equation:</i>  <math>d = 260 - 175</math></p>	<p><b>Leading Language</b>                      At a zoo, the female black bear weighs 175 pounds. The male black bear weighs 85 pounds more than the female black bear. How much does the male black bear weigh?</p> <p><b>Misleading Language</b>                      At a zoo, the female black bear weighs 175 pounds. The female black bear weighs 85 pounds less than the male black bear. How much does the male black bear weigh?</p> <p><i>Math drawing:</i></p>  <p><i>Situation and solution equation:</i>  <math>175 + 85 = m</math></p>	<p><b>Leading Language</b>                      At a zoo, the male black bear weighs 260 pounds. The female black bear weighs 85 pounds less than the male black bear. How much does the female black bear weigh?</p> <p><b>Misleading Language</b>                      At a zoo, the male black bear weighs 260 pounds. The male black bear weighs 85 pounds more than the female black bear. How much does the female black bear weigh?</p> <p><i>Math drawing:</i></p>  <p><i>Situation equation</i>  <math>f + 85 = 260</math> or  <math>f = 260 - 85</math></p> <p><i>Solution equation:</i>  <math>f = 260 - 85</math></p>

A comparison sentence can always be said in two ways. One way uses *more*, and the other uses *fewer* or *less*. Misleading language suggests the wrong operation. For example, it says *the female black bear weighs 85 pounds less than the male*, but you have to add 85 pounds to the female's weight to get the male's weight.

# Problem Types (continued)

	Unknown Product	Unknown Factor	Unknown Factor
Arrays	<p>For the yearbook photo, the drama club stood in 3 rows of 7 students. How many students were in the photo in all?</p> <p><i>Math drawing:</i></p>  <p><i>Situation and solution equation:</i></p> $n = 3 \cdot 7$	<p>For the yearbook photo, the 21 students in drama club, stood in 3 equal rows. How many students were in each row?</p> <p><i>Math drawing:</i></p>  <p><i>Situation equation:</i></p> $3 \cdot n = 21$ <p><i>Solution equation:</i></p> $n = 21 \div 3$	<p>For the yearbook photo, the 21 students in drama club, stood in rows of 7 students. How many rows were there?</p> <p><i>Math drawing:</i></p>  <p><i>Situation equation</i></p> $n \cdot 7 = 21$ <p><i>Solution equation:</i></p> $n = 21 \div 7$
Area	<p>The floor of the kitchen is 2 meters by 5 meters. What is the area of the floor?</p> <p><i>Math drawing:</i></p>  <p><i>Situation and solution equation:</i></p> $A = 5 \cdot 2$	<p>The floor of the kitchen is 5 meters long. The area of the floor is 10 square meters. What is the width of the floor?</p> <p><i>Math drawing:</i></p>  <p><i>Situation equation:</i></p> $5 \cdot w = 10$ <p><i>Solution equation:</i></p> $w = 10 \div 5$	<p>The floor of the kitchen is 2 meters wide. The area of the floor is 10 square meters. What is the length of the floor?</p> <p><i>Math drawing:</i></p>  <p><i>Situation equation</i></p> $l \cdot 2 = 10$ <p><i>Solution equation:</i></p> $l = 10 \div 2$

