


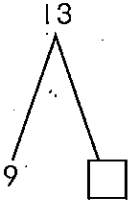
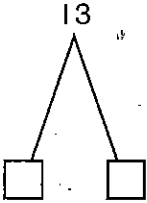
# Problem Types

# Grade 1

	Result Unknown	Change Unknown	Start Unknown
<b>Add To</b>	<p>Six children are playing tag in the yard. Three more children come to play. How many children are playing in the yard now?</p> <p><i>Situation and Solution Equation<sup>1</sup>:</i>  <math>6 + 3 = \square</math></p>	<p>Six children are playing tag in the yard. Some more children come to play. Now there are 9 children in the yard. How many children came to play?</p> <p><i>Situation Equation:</i>  <math>6 + \square = 9</math></p> <p><i>Solution Equation:</i>  <math>9 - 6 = \square</math></p>	<p>Some children are playing tag in the yard. Three more children come to play. Now there are 9 children in the yard. How many children were in the yard at first?</p> <p><i>Situation Equation:</i>  <math>\square + 3 = 9</math></p> <p><i>Solution Equation:</i>  <math>9 - 3 = \square</math></p>
<b>Take From</b>	<p>Jake has 10 trading cards. He gives 3 to his brother. How many trading cards does he have left?</p> <p><i>Situation and Solution Equation:</i>  <math>10 - 3 = \square</math></p>	<p>Jake has 10 trading cards. He gives some to his brother. Now Jake has 7 trading cards left. How many cards does he give to his brother?</p> <p><i>Situation Equation:</i>  <math>10 - \square = 7</math></p> <p><i>Solution Equation:</i>  <math>10 - 7 = \square</math></p>	<p>Jake has some trading cards. He gives 3 to his brother. Now Jake has 7 trading cards left. How many cards does he start with?</p> <p><i>Situation Equation:</i>  <math>\square - 3 = 7</math></p> <p><i>Solution Equation:</i>  <math>7 + 3 = \square</math></p>

<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.

# Problem Types (continued)

	Total Unknown	Addend Unknown	Both Addends Unknown
Put Together/ Take Apart	<p>There are 9 red roses and 4 yellow roses in a vase. How many roses are in the vase?</p> <p><i>Math Drawing<sup>2</sup>:</i></p>  <p><i>Situation and Solution Equation:</i> <math>9 + 4 = \square</math></p>	<p>Thirteen roses are in the vase. 9 are red and the rest are yellow. How many roses are yellow?</p> <p><i>Math Drawing:</i></p>  <p><i>Situation Equation:</i> <math>13 = 9 + \square</math></p> <p><i>Solution Equation:</i> <math>13 - 9 = \square</math></p>	<p>Ana has 13 roses. How many can she put in her red vase and how many in her blue vase?</p> <p><i>Math Drawing:</i></p>  <p><i>Situation Equation:</i> <math>13 = \square + \square</math></p>

<sup>2</sup>These math drawings are called Math Mountains in Grades 1–3 and break-apart drawings in Grades 4 and 5.

	Difference Unknown	Bigger Unknown	Smaller Unknown
Compare <sup>3</sup>	<p>Aki has 8 apples. Sofia has 14 apples. How many more apples does Sofia have than Aki?</p> <p>Aki has 8 apples. Sofia has 14 apples. How many fewer apples does Aki have than Sofia?</p> <p><i>Math Drawing:</i></p> <p>S <input type="text" value="14"/></p> <p>A <input type="text" value="8"/> <input style="border: 1px solid black; border-radius: 50%;" type="text" value="?"/></p> <p><i>Situation Equation:</i>  <math>8 + \square = 14</math></p> <p><i>Solution Equation:</i>  <math>14 - 8 = \square</math></p>	<p><b>Leading Language</b></p> <p>Aki has 8 apples. Sofia has 6 more apples than Aki. How many apples does Sofia have?</p> <p><b>Misleading Language</b></p> <p>Aki has 8 apples. Aki has 6 fewer apples than Sofia. How many apples does Sofia have?</p> <p><i>Math Drawing:</i></p> <p>S <input style="border: 1px solid black; border-radius: 50%;" type="text" value="?"/></p> <p>A <input type="text" value="8"/> <input style="border: 1px solid black; border-radius: 50%;" type="text" value="6"/></p> <p><i>Situation and Solution Equation:</i>  <math>8 + 6 = \square</math></p>	<p><b>Leading Language</b></p> <p>Sofia has 14 apples. Aki has 6 fewer apples than Sofia. How many apples does Aki have?</p> <p><b>Misleading Language</b></p> <p>Sofia has 14 apples. Sofia has 6 more apples than Aki. How many apples does Aki have?</p> <p><i>Math Drawing:</i></p> <p>S <input type="text" value="14"/></p> <p>A <input style="border: 1px solid black; border-radius: 50%;" type="text" value="?"/> <input style="border: 1px solid black; border-radius: 50%;" type="text" value="6"/></p> <p><i>Situation Equation:</i>  <math>\square + 6 = 14</math></p> <p><i>Solution Equation:</i>  <math>14 - 6 = \square</math></p>

<sup>3</sup>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 *Aki has 6 fewer apples than Sofia*, but you have to add 6 to Aki's 8 apples to get 14 apples.

