PROBLEM SOLVING SITUATIONS

JOINING PROBLEMS		
Join: Result Unknown (JRU)	**Join: Change Unknown (JCU)**	**Join: Start Unknown (JSU)**
*Anna had 5 strawberries. Marlon gave her 8 more strawberries. How many strawberries does Anna have now? 5 + 8 = □	Anna had 5 strawberries. Marlon gave her some more. Then Anna had 13 strawberries. How many strawberries did Marlon give Anna? 5 + □ = 13	Anna had some strawberries, Marlon gave her 8 more. Then she had 13 strawberries. How many strawberries did Anna have before Marlon gave her any? □ + 8 = 13
SEPARATING PROBLEMS		
Separate: Result Unknown (SRU)	**Separate: Change Unknown (SCU)**	**Separate: Start Unknown (SSU)**
*Marlon had 13 strawberries. He gave 5 strawberries to Anna. How many strawberries does Marlon have left? 13 - 5 = □	Marlon had 13 strawberries. He gave some to Anna. Now he has 5 strawberries left. How many strawberries did Marlon give Anna? 13 - □ = 5	Marlon had some strawberries. He gave 5 to Anna. Now he has 8 strawberries left. How many strawberries did Marlon have before he gave any to Anna? □ - 5 = 8
PART-PART-WHOLE PROBLEMS		
Part-Part-Whole: Whole Unknown (PPW:WU)	**Part-Part-Whole: Part Unknown (PPW:PU)**	
*Anna has 5 big strawberries and 8 small strawberries. How many strawberries does Anna have altogether? 5 + 8 = □	Anna has 13 strawberries. Five are big and the rest are small. How many small strawberries does Anna have? 13 - 5 = □ 5 + □ = 13	
<u>COMPARE PROBLEMS</u>		
Comp. Difference Unknown	**Comp. Quantity Unknown**	**Comp. Referent Unknown**
Marlon has 8 strawberries. Anna has 5 strawberries. How many more berries does	Anna has 5 strawberries. Marlon has 3 more strawberries than Anna. How many strawberries	Marlon has 8 strawberries. He has 3 more strawberries than Anna. How many strawberries does Anna

Marlon have than Anna? 8 - 5= □ 5 + □ = 8	does Marlon have? 5 + 3 = □	have? 8- 3 = □ □ + 3 = 8
MULTIPLICATION & DIVISION PROBLEMS		
Multiplication	**Measurement Division**	**Partitive Division**
*Anna has 4 piles of strawberries. There are 3 strawberries in each pile. How many strawberries does Anna have? 4 x 3 = □	Anna had12 strawberries. She gave them to some children. She gave each child 3 strawberries. How many children were given strawberries? 12 ÷ 3 = □	Marlon has 12 strawberries. He wants to give them to 3 children. If he gives the same number of strawberries to each child, how many strawberries will each child get? 12 ÷ 3 = □

Problem Chart based on Cognitively Guided Instruction Problem Types. Carpenter et al.,1996