

# DMT INSTITUTE

Developing Mathematical Thinking Institute (DMTI)



Professional  
Development



Curricular  
Resources



Assessment

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# DMTI Varied Practice Worksheets

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This PowerPoint or PDF displays the worksheets that have varied situations (context, visual, equations, and other mathematical models) for children to work on. By completing these worksheets, children increase their foundational skills in the topic, which will help them with these standards and future mathematical topics.

1. If using a journal, have children present the worksheet and complete all the problems.
2. Or print the 'Varied Practice Worksheet Slides' for them to work on. Then, you can return to the PowerPoint or PDF to look at the keys to check their work.

# K – Problem Solving

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DMTI VARIED PRACTICE

# Grade K: Problem Solving Mysteries

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## Materials Needed

Print Underwater Scene Template or view on screen

Print Varied Practice Worksheet 1.1-1.2 or complete on blank paper

## Part A Instructions

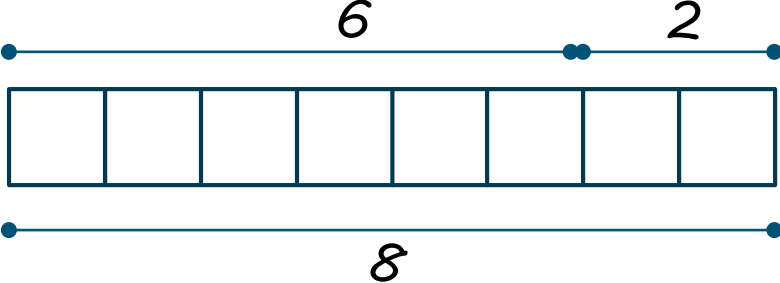
Have the child use the Underwater Scene to figure out the mystery problems and complete the missing boxes on Varied Practice Worksheet 1.1-1.2.

# Template: Underwater Scene



## EXAMPLE

Mystery Problem: There are 8 of us growing on the ocean floor. 6 of us are green. What might be our story?

Story	Model	Equation
There are 8 plants growing on the ocean floor. 6 of them are green and 2 are not green.		$8 = 6 + 2$

### Notes for facilitator:

- Answers may vary depending on what the child finds in the scene. The important part is the story, model and equation all match.*
- Our interpretation of some of the items: 2 separate plants behind the treasure chest for a total of 8, crabs have 8 walking legs and 2 claws, the 7 fish are the different colored fish (not the small fish in the schools), etc.*

# Grade K: Problem Solving Mysteries

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1. There are 7 of us. 3 of us are yellow. What might be our story?
2. We sparkle and can be found inside and outside of a special container. What might be our story?
3. We are round and hard. We can be seen in groups of 2. What might be our story?
4. 6 of us are swimming in one direction and 1 of us is swimming in the opposite direction. What might be our story?
5. I have 10 things attached to my body. What might be my story?
6. I have 4 legs. My legs are different. What might be my story?

Story	Model	Equation
1.		
2.		
3.		



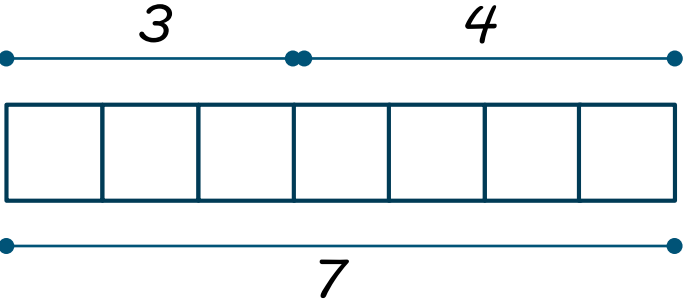
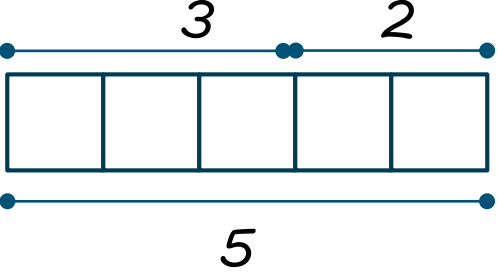
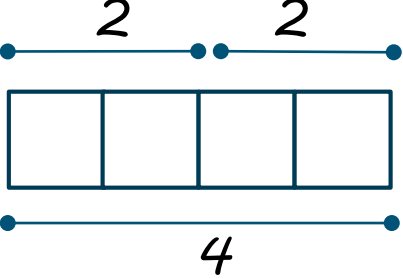
Story	Model	Equation
4.		
5.		
6.		

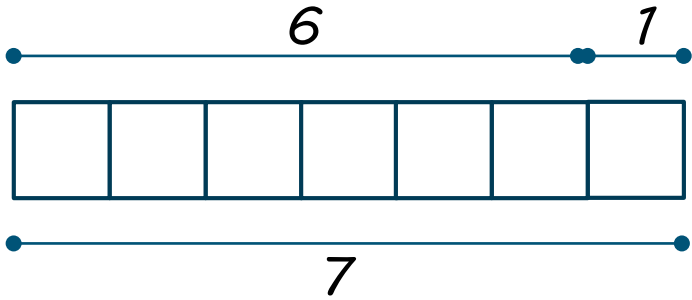
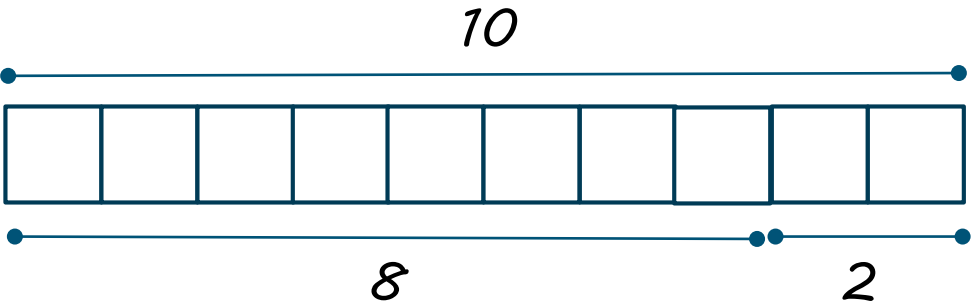
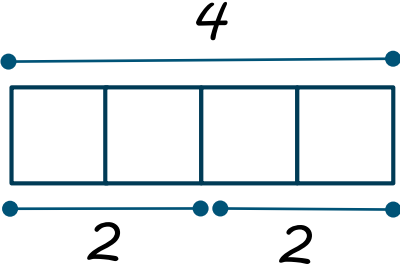


“The Developing Mathematical Thinking Institute (DMTI) is dedicated to enhancing students’ learning of mathematics by supporting educators in the implementation of research-based instructional strategies through high-quality professional development, curricular resources and assessments.”

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Story	Model	Equation
<p>1. There are 7 fish. 3 are yellow. There are 4 fish that are not yellow.</p>		$7 = 3 + 4$
<p>2. There are 3 jewels inside the treasure chest and 2 jewels on the ocean floor. There are 5 jewels all together.</p>		$3 + 2 = 5$
<p>3. There are 2 rocks in one group and 2 rocks in another group. There are 4 rocks all together.</p>		$2 + 2 = 4$

Story	Model	Equation
<p>4. 6 fish are swimming in one direction and 1 fish is swimming in the opposite direction. There are 7 fish swimming.</p>		$6 + 1 = 7$
<p>5. A crab has 10 things attached to its body. It has 8 walking legs and 2 claws.</p>		$10 = 8 + 2$
<p>6. A turtle has 4 legs. 2 legs are longer and 2 legs are shorter.</p>		$4 = 2 + 2$