

Day 7: Problem Solving

Lesson Target:

- **Solve** single- and multi-step word problems involving perimeters of quadrilaterals and verify the solutions.

Process	Activities/Expected Students' responses	Teacher's Support
Understand the Goal	<p>Julie and Jacob have recently created two rectangular vegetable gardens in their backyard. One garden measures <u>6 ft by 8 ft</u>, and the other garden measures <u>10 ft by 5 ft</u>. They decide to place a small fence around the outside of each garden to prevent their dog from getting into their new vegetables. How many feet of fencing should Julie and Jacob buy to fence both gardens?</p>	<p>Display vocabulary cards; Perimeter, Quadrilateral, and Rectangle</p> <p>Introduce a problem</p>
Explore/ Investigate/Solve	<p>Find and underline number information.</p> <p>Find some evidence of vocabulary cards</p> <ul style="list-style-type: none"> • Rectangle: 6 ft by 8 ft, and 10ft by 5 ft • Perimeter: small fence around the outside of each garden <p>Underline a question sentence with a wavy line. "How many feet of fencing should Julie and Jacob buy to fence both gardens?"</p> <p>Discuss their own plans to find the answer with a partner.</p> <p>Synthesize their ideas step by step in class.</p> <ol style="list-style-type: none"> 1. Find Julie's garden's perimeter 2. Find Jacob's garden's perimeter 3. Add both perimeters <p>Solve the problems</p> <p>Add their own (pretend) garden's perimeter S: My garden is 7 ft x 8 ft. So its perimeter is: S: Julie and Jacob need 58 ft. If I add mine, it would be $58 + 30 = 88$. 88 ft.</p>	<p>Record their findings in the class chart with a vocabulary cards</p> <p>$(6 + 8) \times 2 = 28$ $(10 + 5) \times 2 = 30$ $28 + 30 = 58$ 58 ft</p> <ul style="list-style-type: none"> • $7 \times 2 + 8 \times 2 = 30$ • $(7 + 8) \times 2 = 30$ • $7 + 7 + 8 + 8 = 30$
Conclude	Make another garden and find its perimeter.	

Assessment:

- **Identify** important information in the word problem
- **Follow** steps to lead the accurate answer.