

Pizza Garden You-We-I

Problem Stem:

- **We are building a garden that is 9 feet wide and 12 feet long.**

What questions can we ask?

- Collect some questions. Make sure you get. Questions about perimeter and area. Let them know that today is about area.

Pose the Problem

- **We are building a garden that is 9 feet wide and 12 feet long. Part of the garden needs to be tomatoes and part of it needs to be for basil. Design your garden. Tell me the area of your total garden as well as the area of the part with tomatoes and the part with Basil. Tell me the dimensions of your tomato part and your basil part.**

Look for posters who break up the 12 in different ways (we had 12 as $9+3$ and $10+2$). Or two posters the broke up the 9 differently. You will want to compare and contrast 2 posters that broke up one of the sides of the garden differently.

Then ask the question:

- In which poster could you find the total area by using:
 - $9 \times 10 + 9 \times 2$
 - $9 \times 9 + 9 \times 3$
- “This shows us we can break up numbers differently when we multiply. We are going to be doing this when we multiply larger numbers.”
- Let the teacher know that this will lead into partial products.