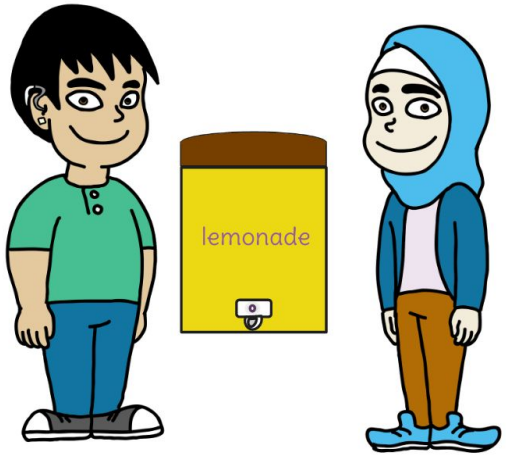
Deepen Student Understanding: Making Connections Among Mathematical Representations

Meg Hearn and Meka Wilhoit

Oliver and Leila made lemonade in this container.

They used two gallons of water, which is eight times the amount of lemon juice required for the recipe.

How can you show how much lemonade is in the container?



Practical tips for planning

- Choose a task that **elicits understanding**
- **Know the problem** inside and out
- **Anticipate** student responses and **prepare questions**
  - (5 Practices #1)
- **Look for and describe** the connections
  - among responses
  - between responses and the learning goal (5 Practices #5)
- **Build** community with your peers!

Promote productive struggle and make connections during class

3-2-1

3 Students

- Work on the problem independently

2 Passes

- Form a triad
- Pass your work to the right
- Jot: How is the approach the **same**? How is it **different**?
- Pass the work to the right and jot

1 Discussion

- What **math** connects the approaches?