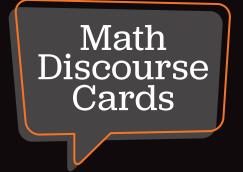
Math Discourse Cards

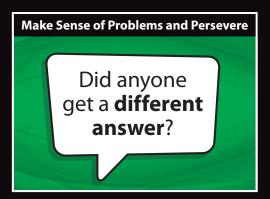
Questions and **Sentence Starters** to Encourage Peer and Whole Class Conversations

Math Shouldn't Be Quiet



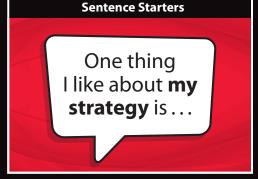
These questions and sentence starters provide a way to engage all students in meaningful mathematical conversations.

Post the cards around the classroom or hand them out to help students initiate and deepen conversations with partners, small groups, or the whole class.









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Using the Math Discourse Cards

These **questions** and **sentence starters** provide a way to engage all students in meaningful mathematical conversations. These cards will help students initiate, deepen, and extend conversations with partners, small groups, or the whole class.

Each card has two questions or sentence starters on it—one on the front and one on the back.

With each question, be sure to **have students explain their reasoning** for their response.

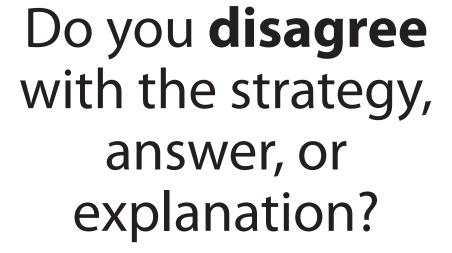
Some possible uses:

- Post the cards around the room and refer to them when solving problems as a class.
- Give each student a card to use during the whole class and small group discussion portion of Curriculum Associates' classroom routine or other discourse-based problem-solving routine.
- Choose a few cards for everyone in the class to focus on each week, based on the content of your lesson.

What strategy did you use?



Do you **agree** with the strategy, answer, or explanation?



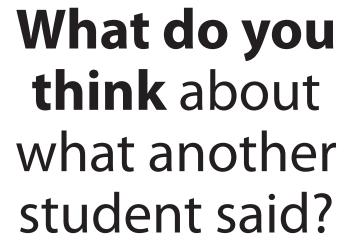
What question do you have for your partner or the class?



How would you **explain** your strategy to others?



Can you convince
your partner or
others that your
answer makes sense?



30

Can you explain another student's explanation?



Did you work together? In what way?



What would you add to what was said?

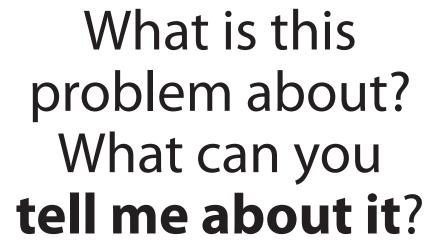


Did everybody get a fair chance to talk or use the manipulatives?

A S

How could you help another student without telling them the answer?

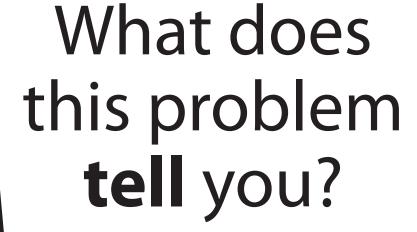
How would you explain how to solve this problem to someone who missed class today?

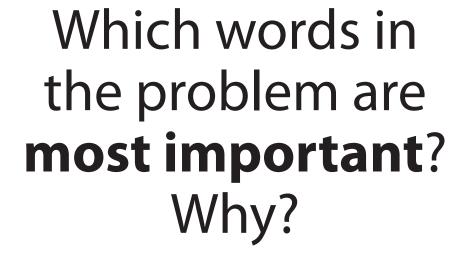


Is there something in the problem that can be **eliminated** or that is **missing**?

Could you **explain** what the problem is asking?





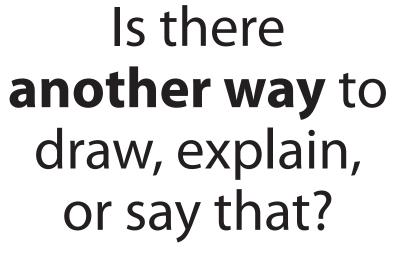


Have you tried making a **guess**?

What other ideas have you tried?

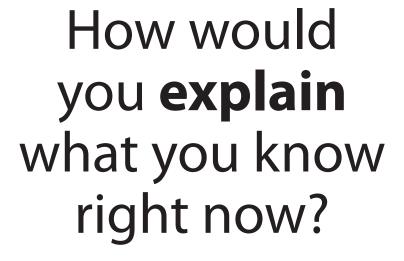


Would another method work as well or better?



What is another related problem?

Is there an easier way to do the problem?

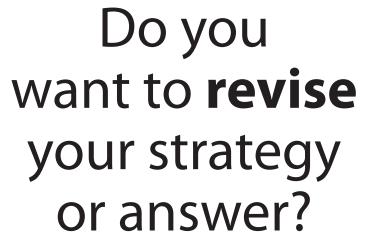


07

Does your partner's strategy make **sense**?

48

Can you draw a picture or make a model to show how to solve the problem?



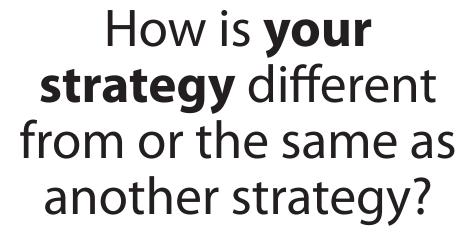
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How can you be sure your answer is right?



How did you begin to think about this problem?

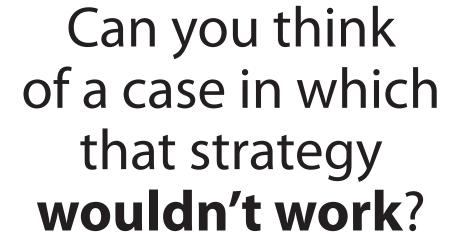




Break the problem into parts. What would the parts be?

48

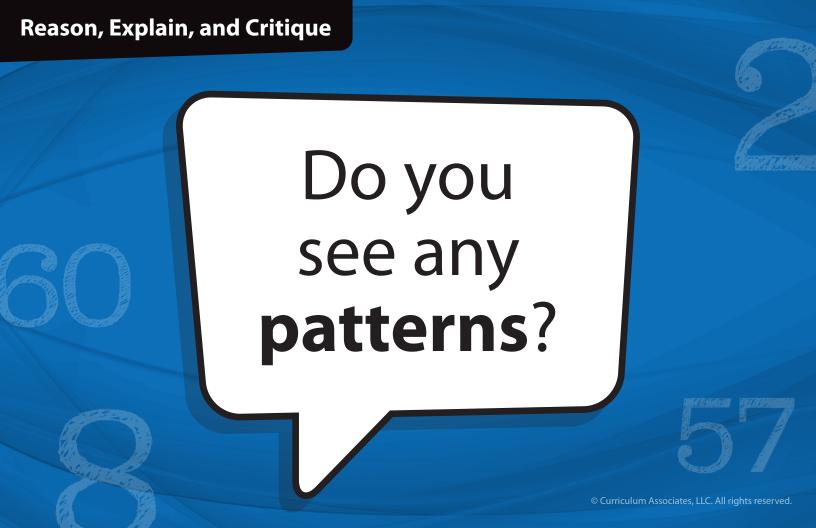
What part of another person's solution do you want them to explain more specifically?



How did you organize your information? Your thinking?

Was your **group participation**appropriate and helpful?







50

How would you check your steps or your answer?

Reason, Explain, and Critique

48

What did not work?

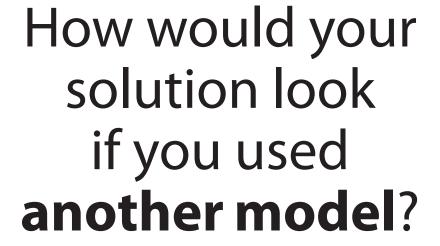


How is your solution method the same as or different from another student's method?

Other than retracing your steps, how can you determine if your answers are appropriate?

How did you organize the information?

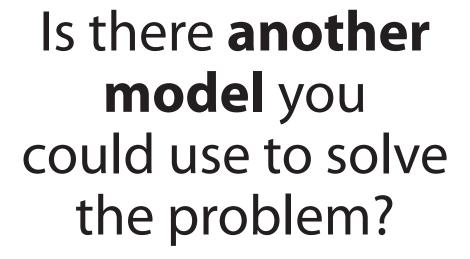
How could you solve this using tables, lists, pictures, or diagrams? What ways have you tried?
What **steps** did you take?



How would you draw a diagram or make a sketch to solve the problem?

48

Is there another possible answer?



Is there anything you may have forgotten?



What was your estimate or prediction?



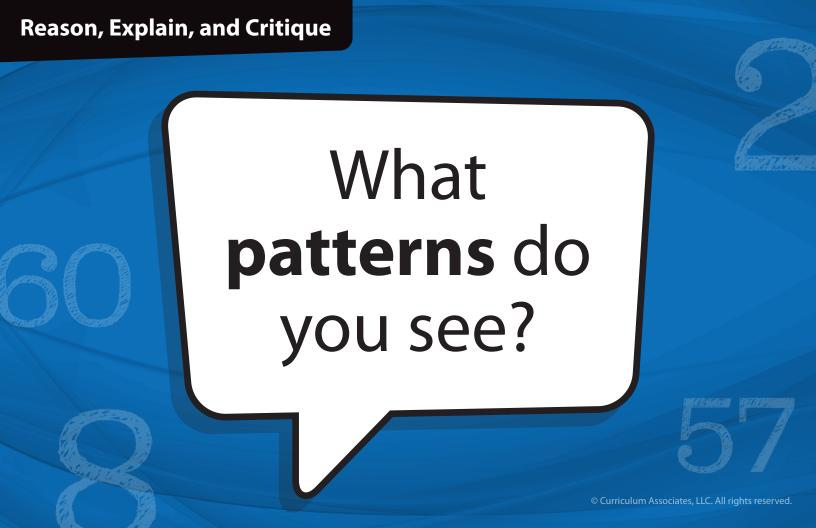
How did you think about the problem?

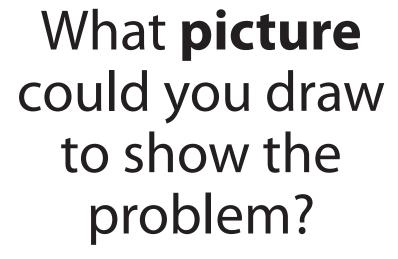
How confident are you in your answer?

What else would you like to know about solving this problem?

Is the solution reasonable, considering the context?







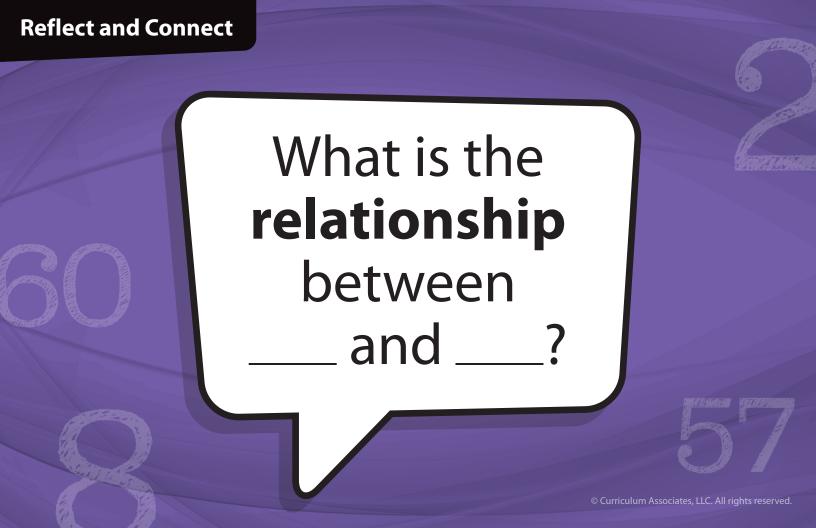
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What strategy did you use?



Explain your partner's solution to them. Are there any steps you need to ask about?



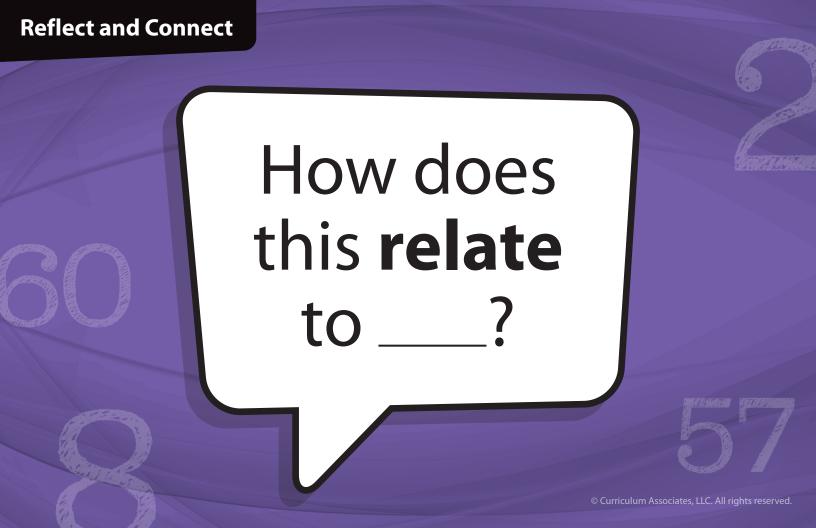


How is this problem like one we solved before? How is it different?

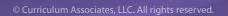
What is the same about your and your partner's strategies?





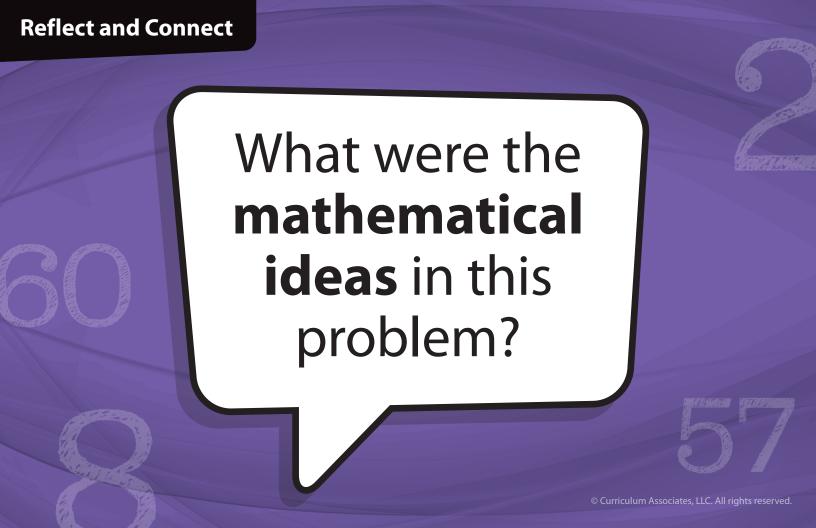


How would your method work with other problems?

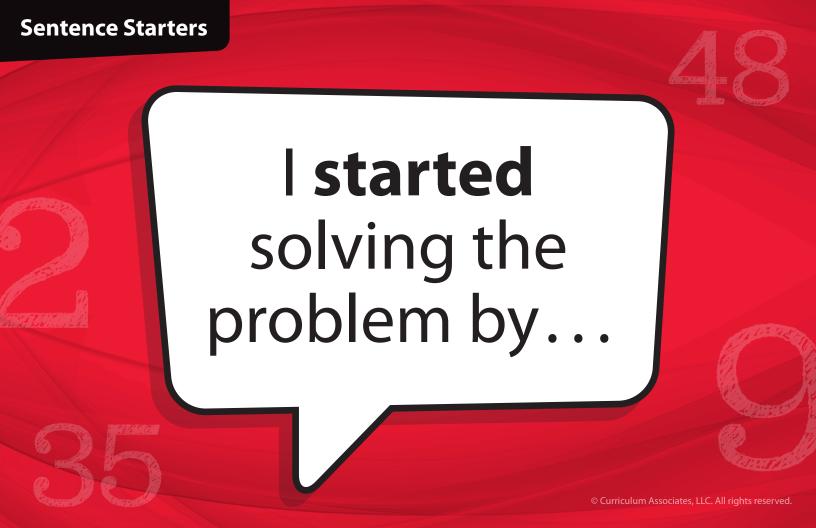


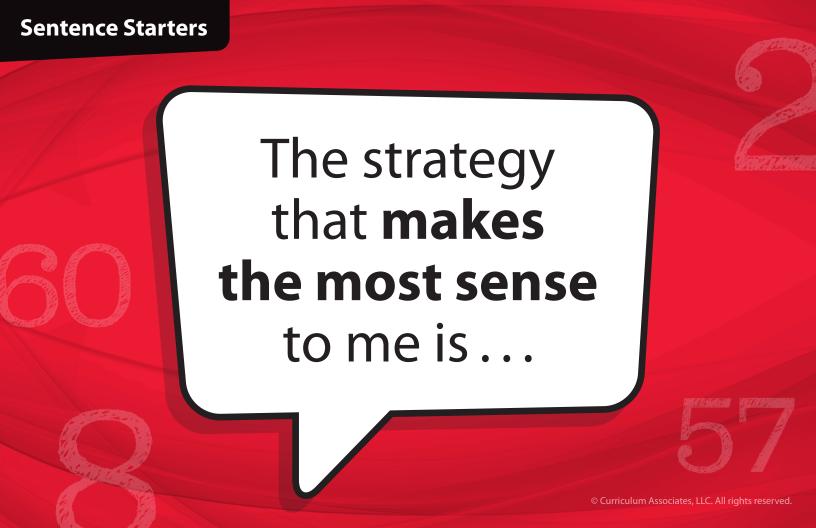
Did you **use any tools**?
If so, describe them.



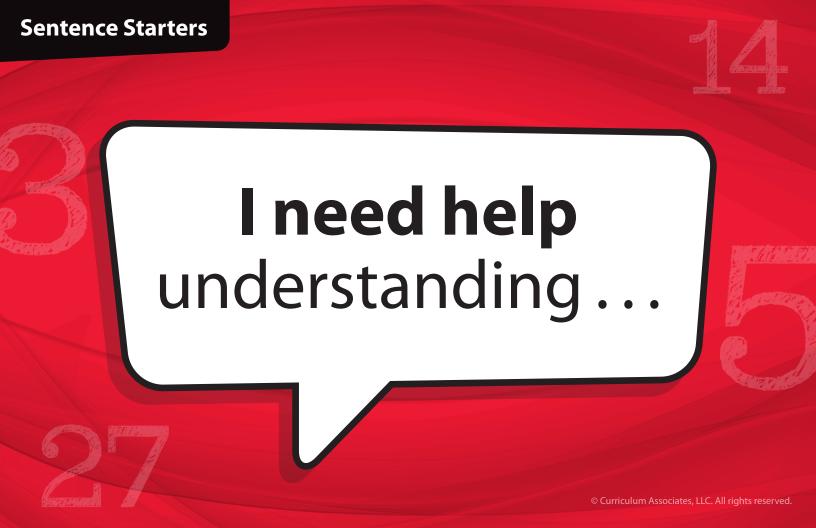


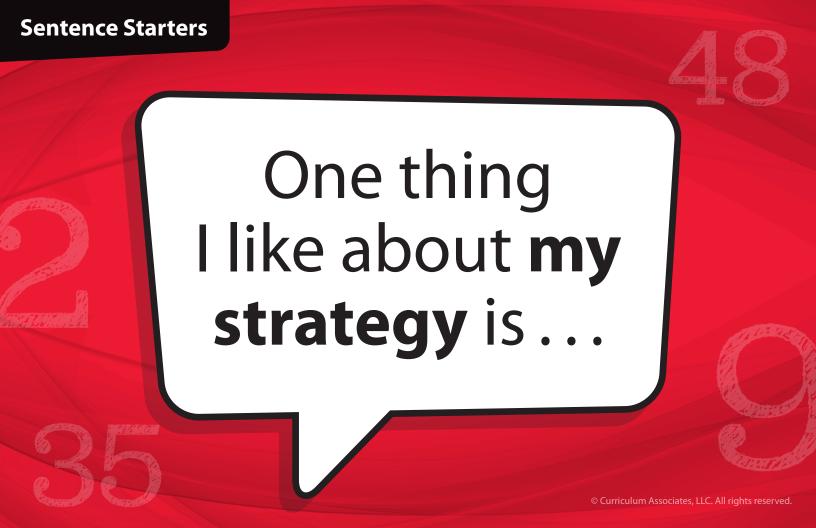
What math did you use in this problem that was different from others you have done?













Something new that I learned today was...



