

Sticker Situation

Teaching Goal

After participating in this lesson, students will be able to identify the error presented in the problem. Students will also choose a representation, either visual or numerical, and use it to solve the problem.

Problem

Bill has 8 more stickers than his sister, Ann. Ann has 24 stickers. When Bill asked Ann how many stickers they have altogether, she replied, "32."

Teaching Plan

1. Present the problem to the students.
2. Have students read the problem.
3. Lead a whole group discussion. Consider using the following questions as part of the discussion:

There is something wrong with Ann's answer. What is it?

The error is one of concept. Bill has 8 more stickers than Ann, not 8 stickers.

What information do you know from the problem? Ann has 24 stickers and Bill has 8 more stickers than Ann has.

What is 8 more than 24? 32

How many stickers does Bill have? 32

How many stickers does Ann have? 24

How will you find the number of stickers Ann and Bill have altogether? Add $32 + 24$.

How many stickers do they have altogether? They have 56 stickers altogether.

Explain your strategy and solution.

Did anyone else use a different strategy?

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You may wish to encourage students to use a specific representation to solve the different problems in this section. You may also have them try to use multiple representations such as a drawing and writing equation to solve one or more of the problems.

Problem 7 Ticket Sales

Keishon sold tickets for the school band concert. He sold 24 tickets on both Monday and Tuesday. On Wednesday and Thursday he sold twice as many tickets as he sold on Monday and Tuesday. He thinks he has sold 72 tickets for the concert.

Keishon's thinking ► $2 \times 24 = 48$ tickets
 $24 + 48 = 72$ tickets

There is something wrong with Keishon's thinking.

1. Show how you would find the total number of tickets sold.

2. Explain the mistake in Keishon's thinking.
