

Addition and Subtraction Inverse Operations

Guided Practice: $5 + 3 = 8$ and $8 - 3 = 5$

(Students begin to build models with linker cubes, complete open number lines, and write equations with teacher guidance.)

Frank had 5 crayons. His sister gave him 3 more crayons. How many crayons does he have now?

Now Frank has 8 crayons. He gives 3 crayons back to his sister. How many crayons does Frank have now?

$$5 + 3 = 8 \text{ and } 8 - 3 = 5$$

We started with 5 and added 3 to get 8. Then we subtracted the 3 and ended up with 5 again.

(Remind students addition and subtraction undo each other, as in the teacher model.)

You Try: $2 + 6 = 8$ and $8 - 6 = 2$

(Note how students do these problems and give more practice if needed, either for whole group or for a small group.)

Dreshaun has 2 cats. His neighbor has 6 cats. How many cats do they have all together?

Then ! If his neighbor moves and takes his 6 cats away, how many cats will be left?

*****Part Two—Start with Subtraction*****

Teacher Model: $9 - 5 = 4$ and $4 + 5 = 9$

Last time we worked with addition and subtraction, we added first. This time we're going to subtract first, and see what we get when we add back together.

Katie has 9 bracelets. She gave 5 bracelets to her friend. How many does she have now? This time we're taking away, not putting together first.

(Model building and drawing linking cubes. Write the equation.)

She has 4 left. Let's see what happens if her friend gives them back.

(Model with linking cubes. Solve the equation.)

First we subtracted 5 from 9, and we got 4. Then we added 5 back together with the 4, and we got 9 again. We added to undo the subtraction.

So..the inverse operation is true even when you start with subtraction. If you add back the n