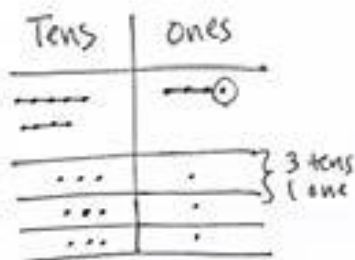


Name Jack Date _____

1. When you divide 94 by 3 there is a remainder of 1. Model this problem with number disks. In the number disk model, how did you show the remainder?



I showed my remainder by circling the remaining one in the ones column.

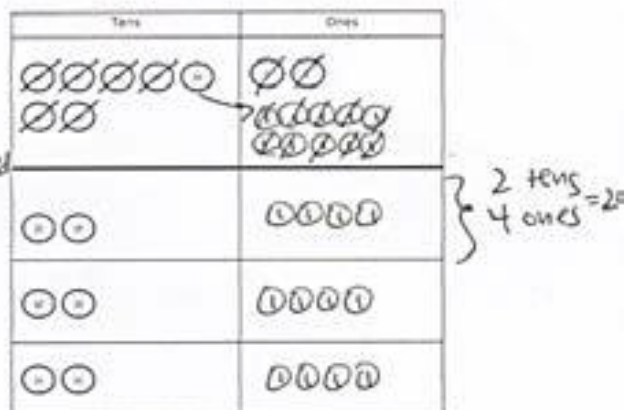
2. Cayman says that $94 \div 3$ is 30 with a remainder of 4. He reasons it is correct because $(3 \times 30) + 4 = 94$. What mistake has Cayman made? Explain how he can correct his work.

Cayman's mistake is that his remainder is greater than his divisor. That means he can divide even more. Instead of 30, he can make 31 groups.

$$94 \div 3 = 31 \text{ with a remainder of } 1. (3 \times 31) + 1 = 94.$$

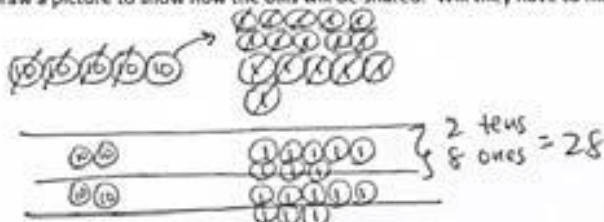
3. The number disk model is showing $72 \div 3$. Complete the model. Explain what happens to the 1 ten that is remaining in the tens column.

The 1 ten remaining gets decomposed into 10 ones in the ones column.



4. Two friends share 56 dollars.
 a. They have 5 ten dollar bills and 6 dollar bills.

Draw a picture to show how the bills will be shared. Will they have to make change at any stage?



yes, they needed to make change for 1 ten dollar bill. In order to share it, I needed to decompose the \$10 dollar bill into 10 \$1 dollar bills

- b. Explain how they share the money evenly.

Each friend gets two \$10 dollar bills and eight \$1 dollar bills.

5. Imagine you are filming a video explaining the problem $45 \div 3$ to new fourth graders. Create a script to explain how you can keep dividing after getting a remainder of 1 ten in the first step.

"Watch as I divide $45 \div 3$ using a place value chart."

First I divide my tens.

Each of the 3 groups can equally have 1 ten. There is 1 ten remaining. We can continue dividing by decomposing the 1 ten into 10 ones. Watch as I show this on my chart. Now I have 15 ones that can be equally distributed into our 3 groups. Each group will get 5 ones. Now we can see that $45 \div 3$ is 1 ten 5 ones or 15."

