

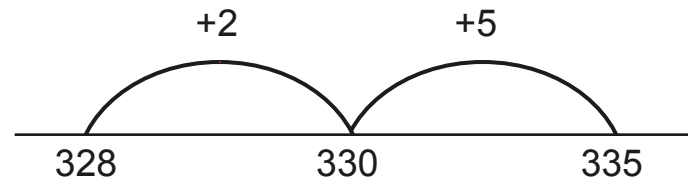
# Add and Subtract Mental Maths



# Using a Number Line

Ruby is adding ones to three-digit numbers using a number line. She has drawn this.

Add 2 to reach 330, and add a further 5 to make 335.



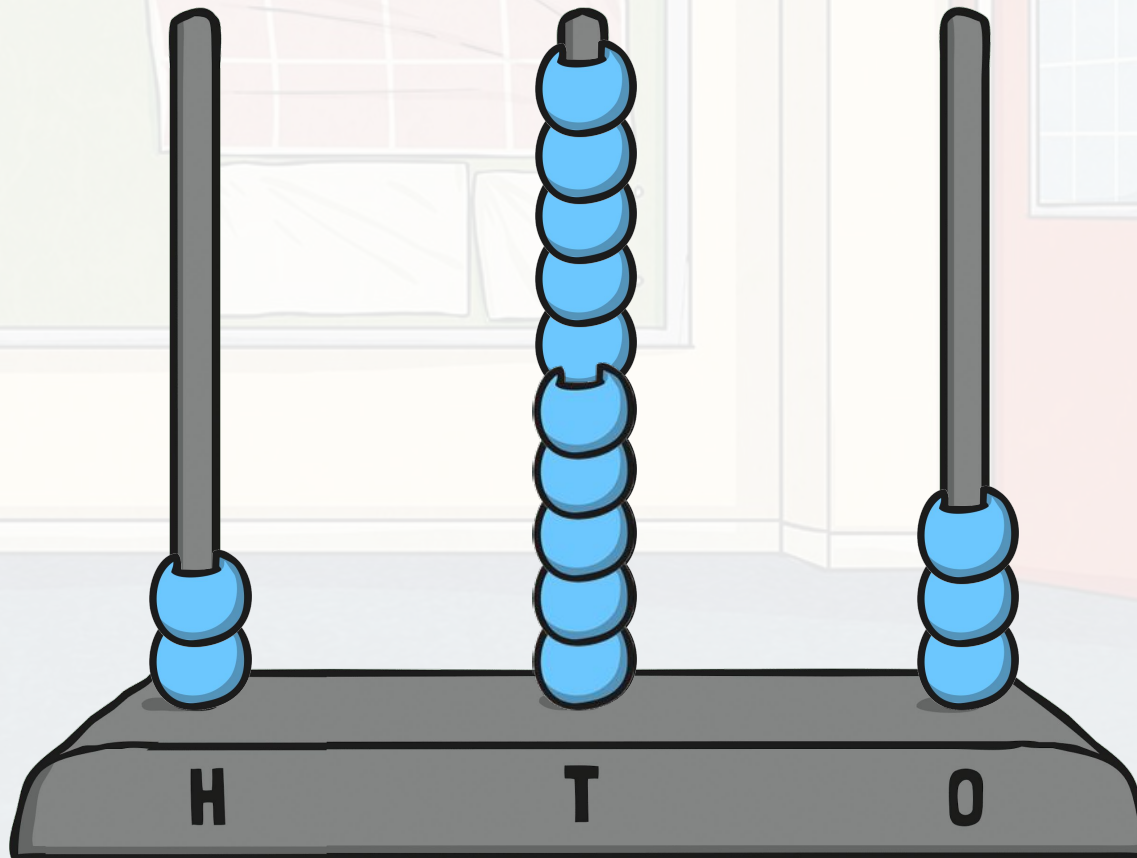
Discuss with a partner what Ruby has done. How would you complete this addition calculation on a number line?

Answer



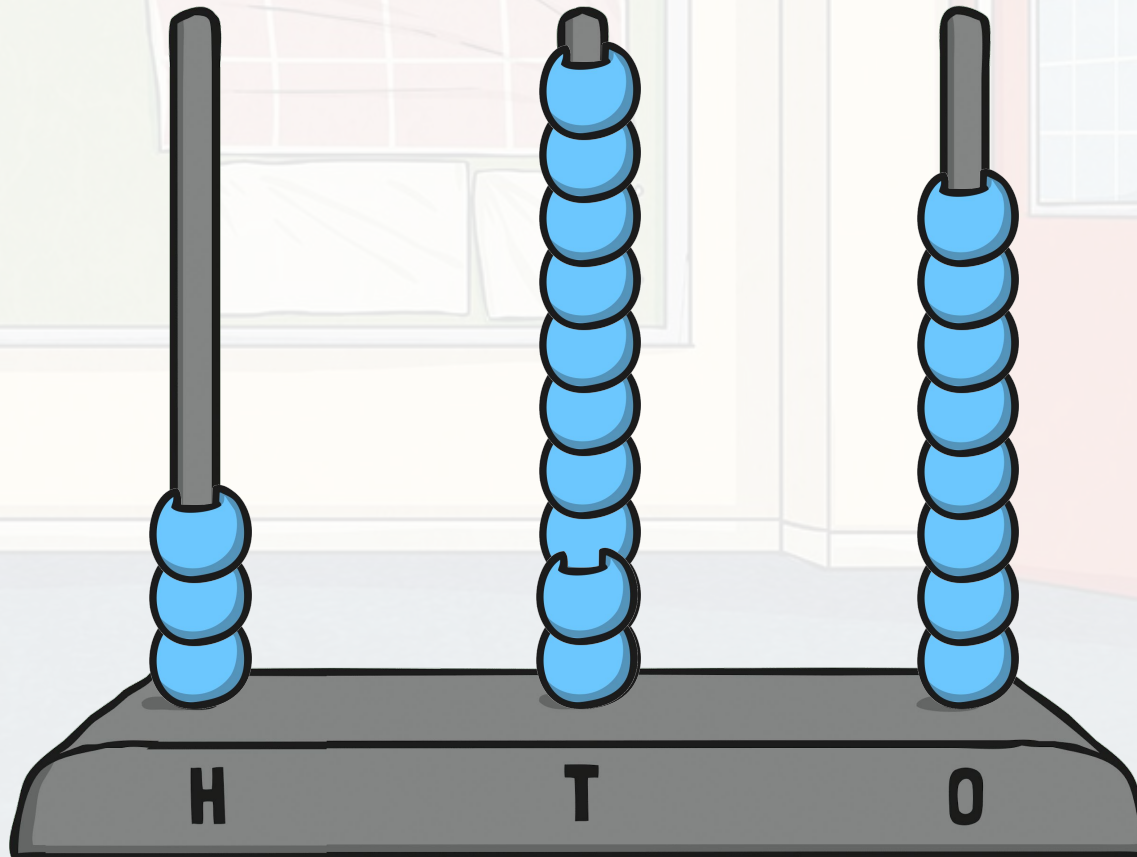
# Using an Abacus

It would work up to 9 tens. When the tenth bead is added to the middle set (tens column), they are removed, and 1 bead is added to the hundreds.



# Using an Abacus

For subtraction, the number of tens subtracted will be taken from the tens, but if there aren't enough, then one hundred is exchanged into 10 tens, thus allowing the remaining tens to be removed.



# Using an Abacus

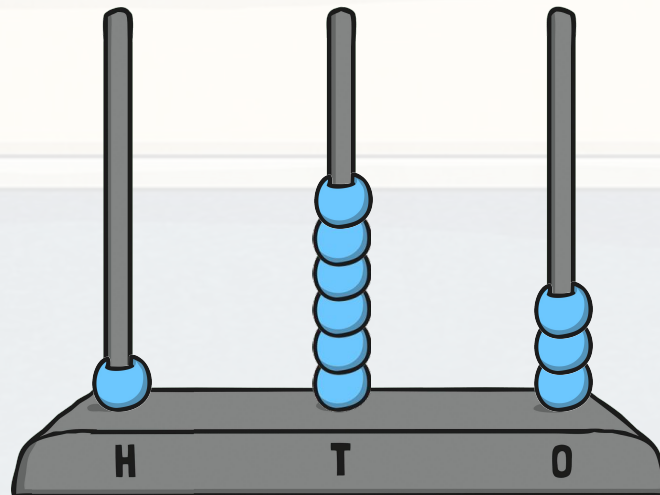
Mariam has an abacus with 3 sets of beads. She says, "I can use the abacus to add tens to any three-digit number. I simply add the number of beads to the middle set of beads and read the new number."

Explain to a partner when this would not work.

Answer

What rule would you need for subtracting tens?

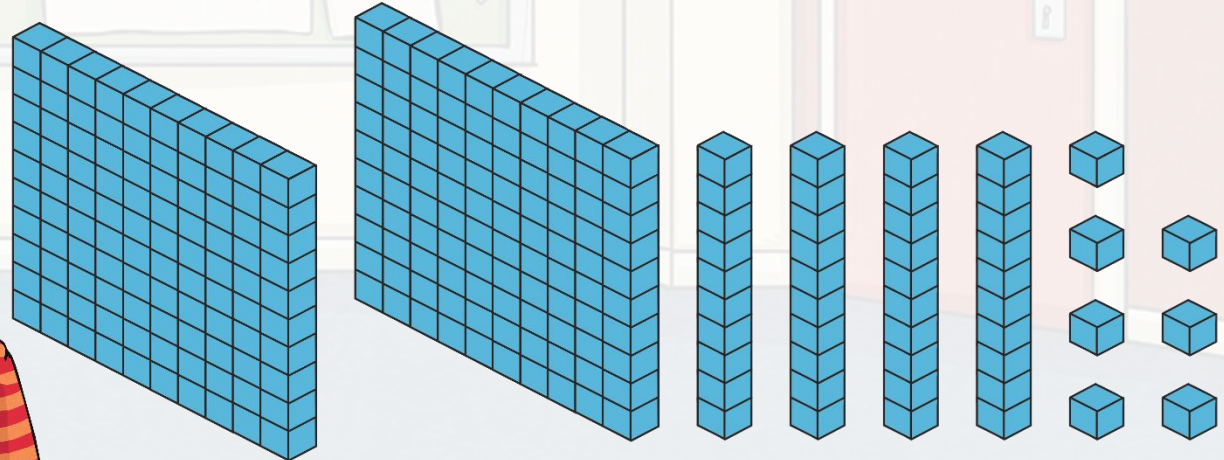
Answer



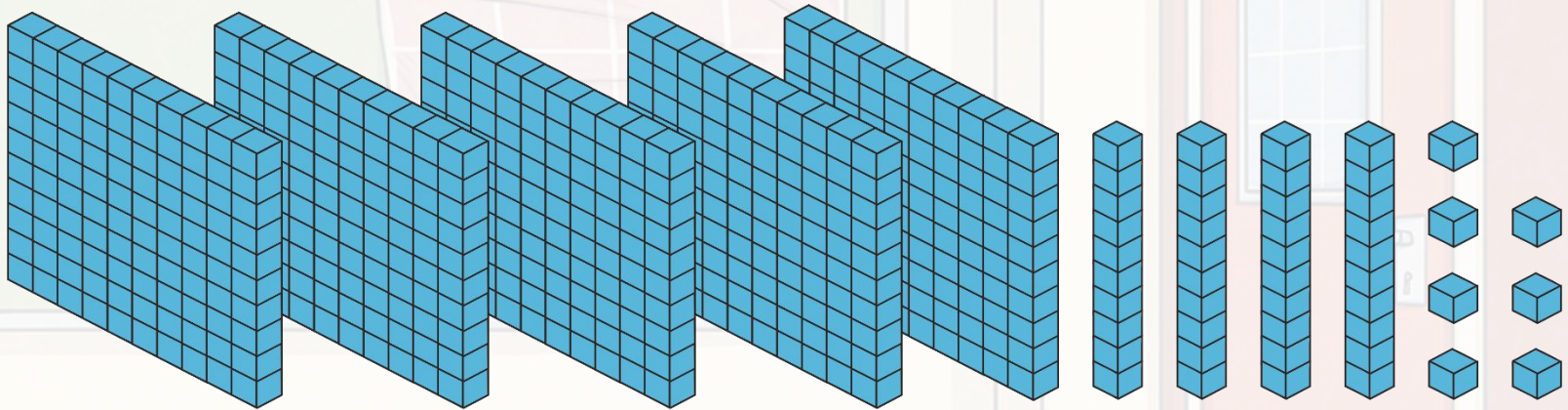
# Using Base Ten Equipment

Mohammed says he can use base ten equipment to add and subtract hundreds from three-digit numbers. With a partner, explain how to add 300 to 247 using base ten equipment.

Devise your own subtraction calculation to show how to use base ten equipment to subtract hundreds from a three-digit number.



# Using Base Ten Equipment (Addition)

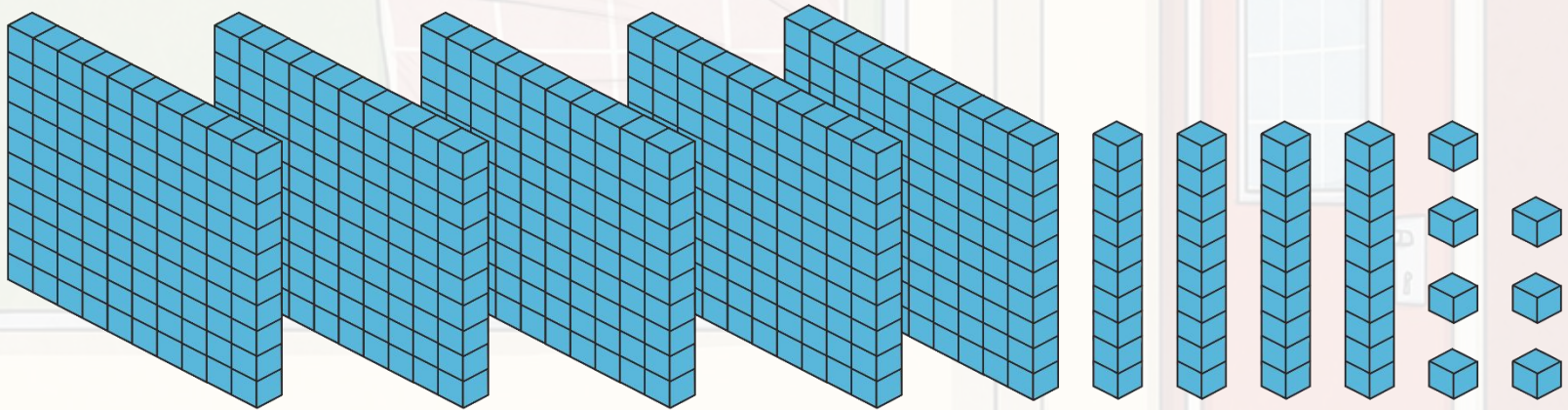


$$247 + 300 = 547$$

Make the number 247 using base ten equipment. Take 3 hundred flats and add them to the existing hundreds flats.

The answer is  
547.

# Using Base Ten Equipment (Subtraction)



$$547 - 300 = 247$$

Make the number 547 using base ten equipment. Take 3 hundred flats away. The answer is 247.



