Solving Multiplication Problems

CRA Model

Concrete ---> Representational --> Abstract

Additional reading: Flores, Hinton, and Strozier, 2014

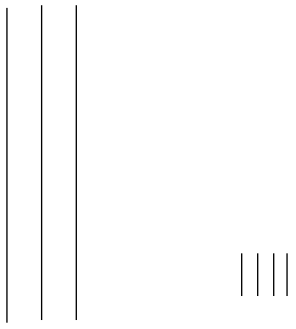
Representational Example:

The multiplication equation 34 x 2 will be used throughout this "representational" demonstration.

1) Review the reverse rule for 3 x 2 = 6 (3 groups of 2 equals 6): 2 x 3 = 6 (2 groups of 3 equals 6)
2) Read the problem. Insert "T" grid and label hundreds, tens and units columns with *H, T, U*.

H	T	U
	3	4
X		3

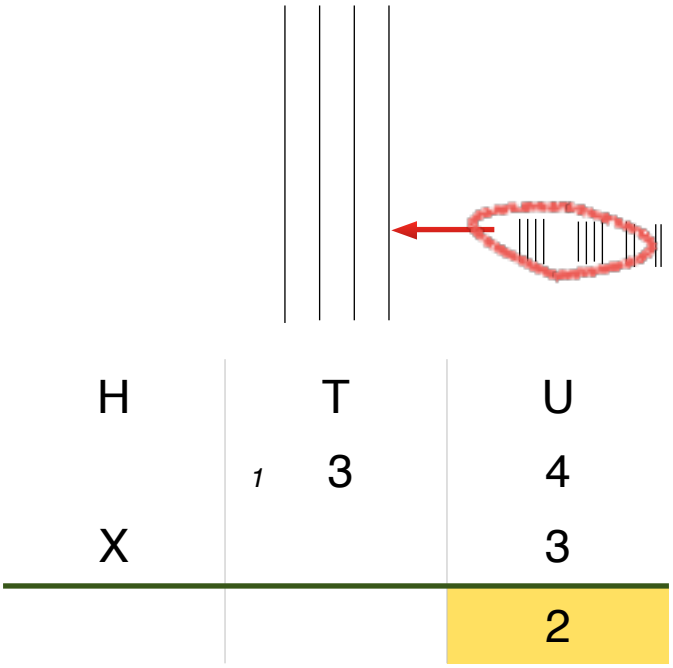
3. Represent the top number. Set out the blocks for the top number separately then draw out 4 units and 3 tens.



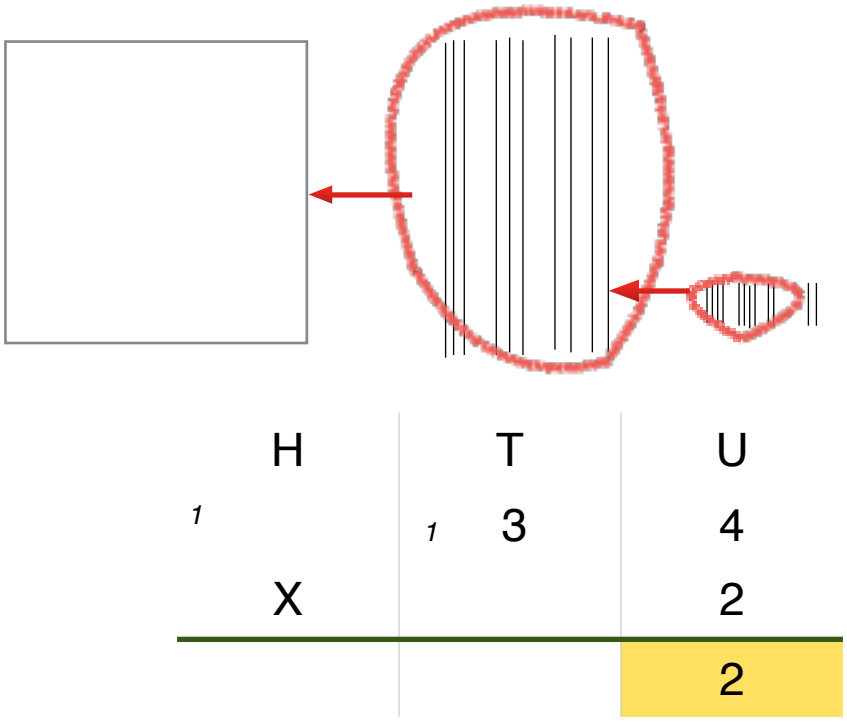
H	T	U
	3	4
X		3

4. Examine the Units column (three groups of 4 units). Set out blocks for four groups of 3 units. Say "*If there are 10 or more, go next door*." There are more than 10 units, so circle 10 units and add a "ten" to the Tens column.

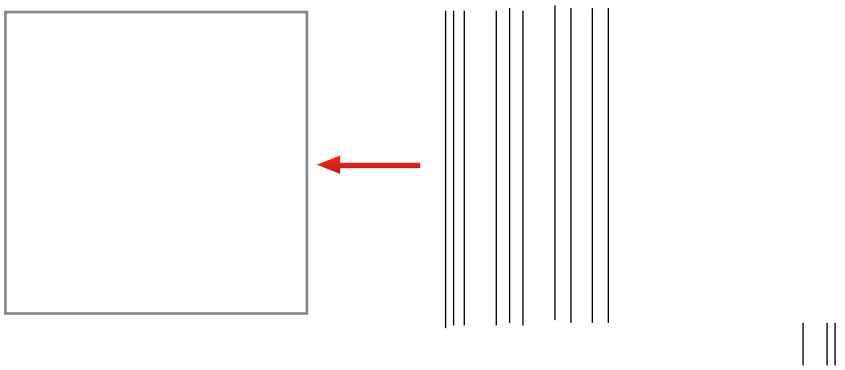
5. Note the Units column- after "regrouping", there are 2 units. Write the number "2" under the line.



6. Now draw for the rest of the Tens column (three groups of three tens).

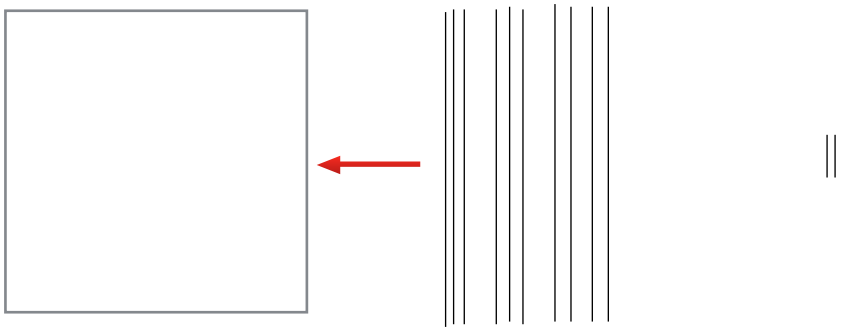


7. Mark the tens column with a "0" as there are zero tens remaining.



H	T	U
1	1 3	4
X		2
	0	2

8. Look at the Hundreds column. There is 1 hundred - write "1" under the line in the Hundreds column. Check to make sure that the answer, "102", matches the drawing.



H	T	U
1	1 3	4
X		2
1	0	2