PLACE VALUE: BEYOND THE CHART

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Angie Godfrey
Regional Math Specialist
godfange@isu.edu

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Essential Questions

• What is place value?
• Why don’t they get it?
BUILD IT

• Build the number in as many ways as you can
• Record the ways on the chart
• Record a number sentence that represents your model

253
Choose & Prove

- Choose a number sentence that helps you solve the following problems efficiently. (One you have or would have had)
- PROVE why you chose this number sentence, using the blocks or descriptions using place value.

253 – 167
253 + 167
253 x 4
253 ÷ 12
**What’s Next?**

27, 37, 47, __, __, __

38, 48, 58, __, __, __

Why?

“Because we already did the 7’s.”

- What does this look like if I build it?
- What’s the same between the numbers?
- What’s different?
- What’s changing?
- What’s constant?
- How can you record what you’re seeing?
Write the number.

1. $300 + 20 + 4 = \underline{324}$
2. $500 + 40 + 3 = \underline{543}$
3. $800 + 50 + 2 = \underline{852}$
4. $600 + 70 = \underline{670}$
5. $900 + 5 = \underline{905}$
6. $1,000 + 50 = \underline{1,050}$
7. 7 hundreds + 6 tens + 5 ones = \underline{765}
8. 3 hundreds + 5 tens + 6 ones = \underline{356}
9. 4 hundreds + 3 ones = \underline{403}
10. 2 hundreds + 7 tens = \underline{270}
11. 6 hundreds + 2 tens = \underline{620}
12. 2 thousands + 9 tens + 8 ones = \underline{2,098}

What could we ask to help students build relationship understanding?
“Relationships cannot be put into children’s heads from sources external to them. Relationships must be created by children through their own mental activity.” (Kamii, 1988)
“They don’t get place value.”

Why??
WHAT’S NEXT?

2.7, 3.7, 4.7, __, __,

3.8, 4.8, 5.8, __, __,

25.3 – 167
25.3 + 167
25.3 x 4
25.3 ÷ 12
**Choose & Prove**

- Choose a number sentence that helps you solve the following problems efficiently. (One you have or would have had)
- PROVE why you chose this number sentence, using the blocks or descriptions using place value.

\[ 253 - 167 \]
\[ 253 + 167 \]
\[ 253 \times 4 \]
\[ 253 \div 12 \]
WHAT IS PLACE VALUE?

"Number Sense is flexibly thinking about numbers and their relationships."
Van De Walle, p151

“I expect you all to be independent, innovative, critical thinkers who will do exactly as I say!”
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