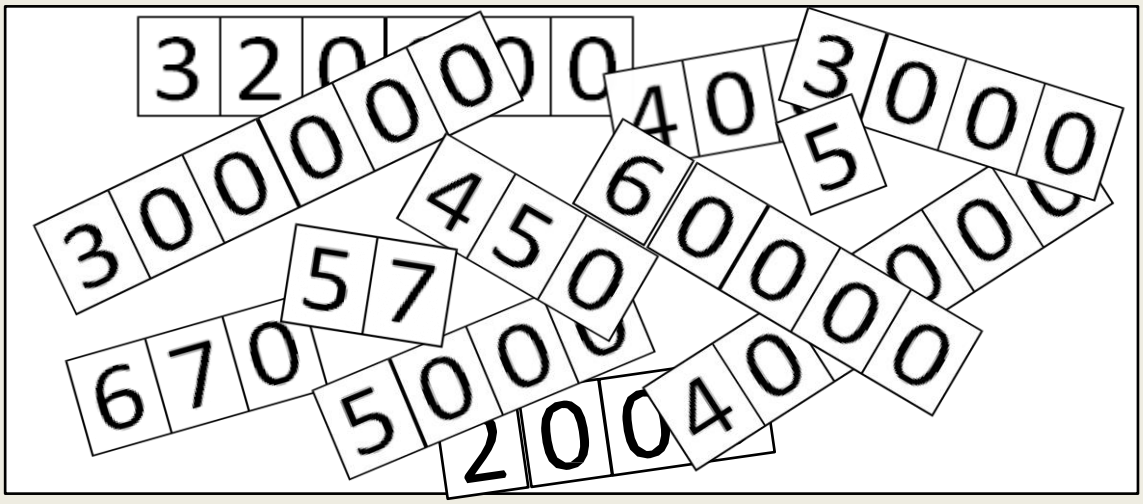
Problem 3: Spilt Cards

The teacher collected the cards that one group used to make their place value numbers. But she accidently spilt them on the floor.



Which cards did these students use to make their numbers?

Davita's number was three hundred and sixty five thousand, six hundred and seventy five.

Zac's number was four hundred and two thousand, four hundred and fifty.

Angie's number was three hundred and twenty three thousand, four hundred and fifty seven.

Make up a *Spilt Cards* problem of your own for a friend to try.

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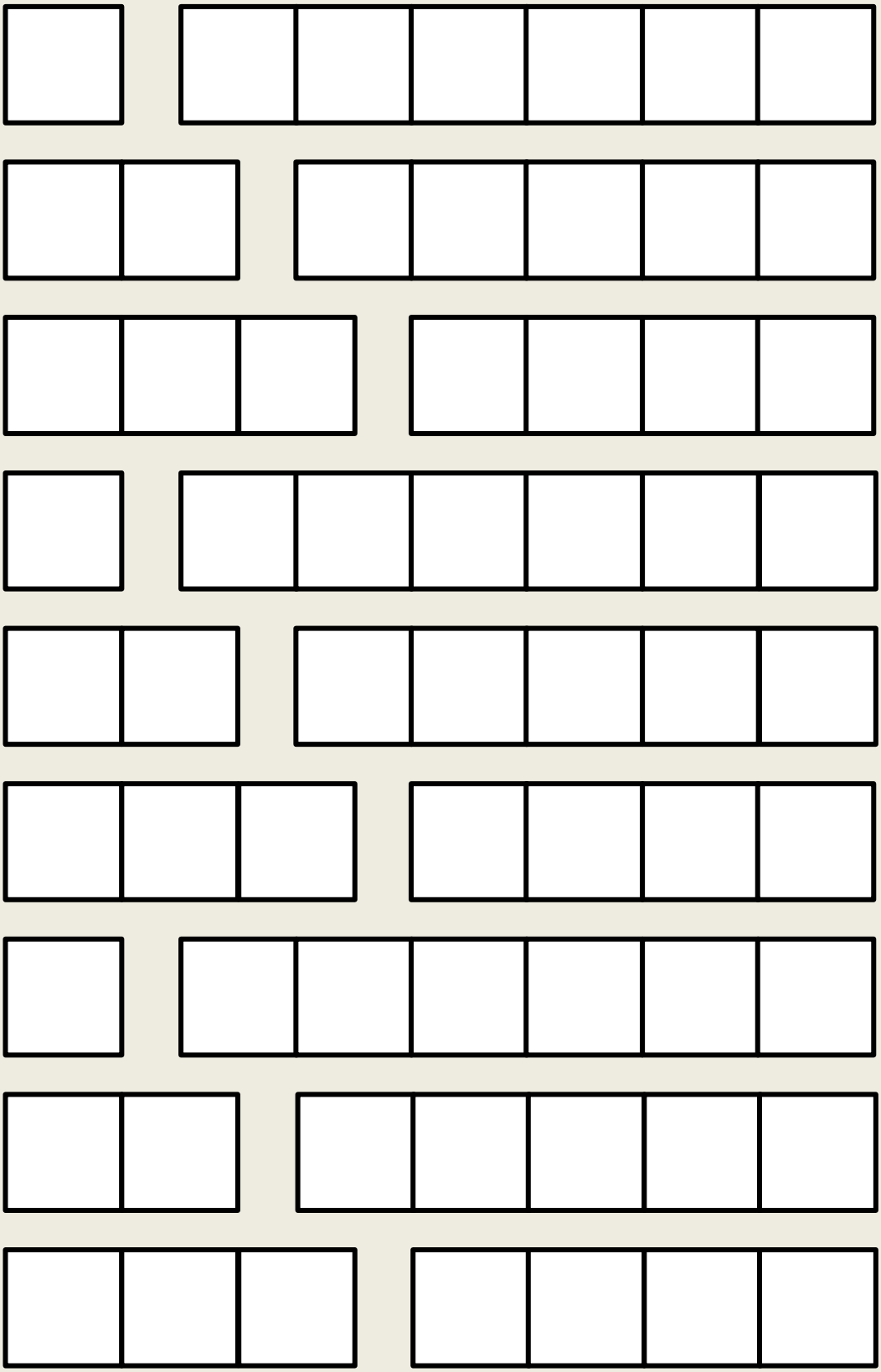
Number Cards

Laminate and cut out for the Spilt Cards activity.



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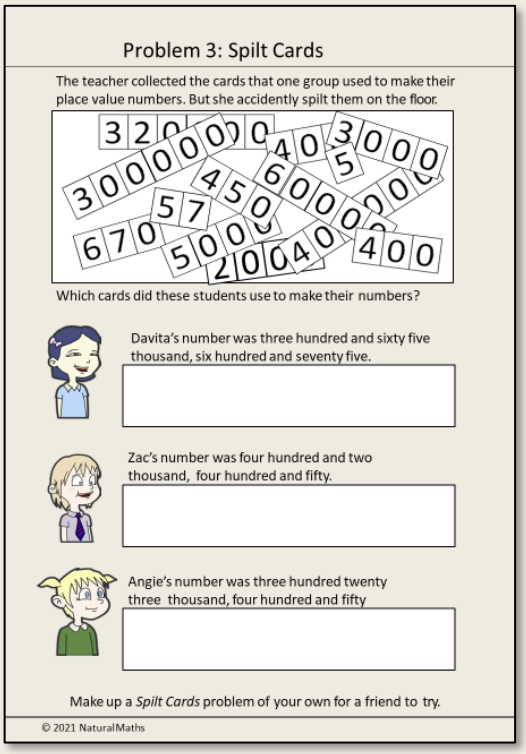
Problematized Situation 3

Spilt Cards

Note: There is a blank sheet of blank cards ready for students to recreate the cards in the problem or to design their own cards when they create their own *spilt card* clues.

The *Target Number Game* spreadsheet can be used to introduce the teaching points before the students work on the problem or as an FLE part way through the problem-solving process.

The interactive spreadsheet *Make the Number Game* can also be used to support the FLE or as extra support for those students needing more practice.



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Resources

- Project or provide copies of the slide for Problem 3.
- Copies of *Number Cards* sheet.
- .

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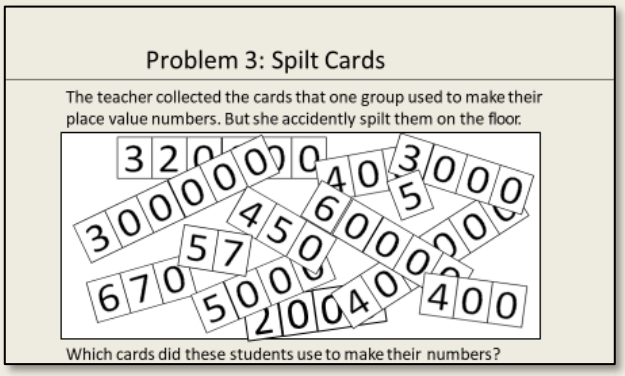

Sort out ...

What happened to the number cards?

What have the students been doing with the cards?

What do you notice about the values on the cards?

What is the problem asking you to work out?

When you have solved the problem, what are you being asked to do next?

Think about ...

Offer the students the Number Card sheet if they want to use it, but leave it up to them to decide if and how to use the cards.

Is it going to be easy to work with the numbers in word form?

Which number cards would it be a good idea to look for first?

Which parts of each number might you work with first?

Do you have to start with the leading/largest number?

How will you keep track of which cards have already been used?

Might the blank number cards be a useful tool for this problem?

Might the blank cards help you create your own clues?

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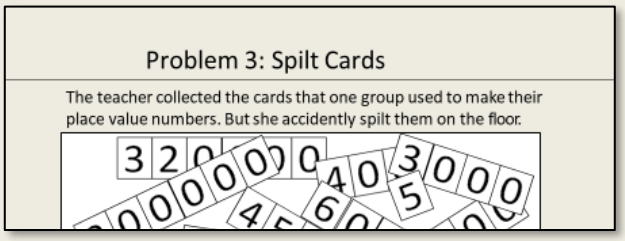
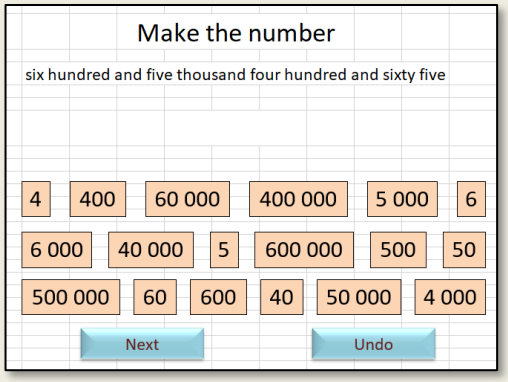


Action ...

Allow time for the students to work on the problem before deciding whether you need to do an FLE on reading and writing large numbers and decomposing them. Use the blank number cards for this.

Use the interactive spreadsheet *Make the Number Game.xlsm* to open a discussion about where to start and in what order to use the cards. Deliberately allow for mistakes to challenge students' thinking about how to fix up an incorrect number.



Reflect on ...

What is involved in finding a card that has clues for the tens of thousands? *Knowing it will be a 5-digit number and counting the numerals or breaking the numbers into groups of three to make them easy to interpret the place value.*

Were there any parts that were tricky? Which and why?

Is reading and understanding large numbers becoming easier? What is helping?

Also talk about how students created their own numbers and number cards. Students could actually present one of their chosen numbers and ask how they might have made it using a specified number of cards.

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