

# Playing Cards Week - Additive Reasoning Y5/6

## Day 1

- Cut a piece of paper into eleven pieces and number nine of them one to nine (or use playing cards ace to nine) and make two decimal points.
- Use pairs of cards to make different two-digit numbers with one decimal place. For example 8.3 and 1.7



 Can you make two two-digit numbers with one decimal place that add together to make 10? For example, 8.3 + 1.7 = 10. How many different ways can you find? What do you notice?

### Notes for adults working with groups of children

- Number lines might help model the relationships for the children.
- Help the children to work and record systematically so that they can see some of the patterns that should emerge and be sure they have considered all possibilities. Encourage the children to describe and explain any patterns they see.

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Website: www.babcockldp.co.uk/improving-schools-settings/mathematics



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## Day 2

Make two two-digit decimal numbers. For example 8.3 and 1.7



- What is the total of your two numbers? For example, the total of
   8.3 and 1.7 is 10 i.e. 8.3 + 1.7 = 10
- What's the biggest total you can find by adding two two-digit decimal numbers made from your nine number cards? What's the smallest total you can find?
- What other totals can you find by adding pairs of two-digit decimal numbers made from your cards? Can you find all the numbers between the smallest and the biggest? What do you notice?

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# Day 3

Make two two-digit decimal numbers. For example 8.3 and 1.7



- What is the difference between your two numbers? For example the difference between 8.3 and 1.7 is 6.6 i.e. 8.3 1.7 = 6.6
- What's the largest difference you can find using two two-digit decimal numbers made from your nine number cards? What's the smallest difference you can find?
- How many ways can you find the smallest difference? What do you notice?

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## Day 4

 Shuffle all the number cards and put them all face down. Choose two. Use them with a decimal point to make a two-digit decimal number and write it down. For example, use 8 and 3 to make 8.3



- Reverse the digits to make another two-digit decimal number. For example reverse 8.3 to make 3.8. Add both of your numbers together. For example 8.3 + 3.8 = 12.1
- Choose another two cards and do the same thing. Repeat until you have only one card left. What do you notice? Will this always happen?

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## Playing Cards Week – Additive Reasoning Y5/6

## Day 5

 Shuffle all the number cards and put them all face down. Choose two. Use them with a decimal point to make a two-digit decimal number and write it down. For example, use 8 and 3 to make 8.3



- Reverse the digits to make another two-digit decimal number. For example reverse 8.3 to make 3.8. Find the difference between your pairs of numbers. For example 8.3 – 3.8 = 4.5
- Choose another two cards and do the same thing. Repeat until you have only one card left. What do you notice? Will this always happen?

### Notes for adults working with groups of children

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