



IrishMaths
Series



Maths: 1st Class

- ✓ number and algebra
- ✓ fractions, decimals and money
- ✓ patterns and algebra
- ✓ shapes and units of measurement
- ✓ location and transformation
- ✓ chance and data

By Anita Green



Title: IrishMaths Series
Maths: First Class

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Teachers' Notes

This book is part of a series containing a range of maths activities. Many of the questions and activities in the book are designed to be open-ended, however where appropriate, answers or suggested answers are provided. The idea of keeping the questions and activities open-ended is to focus on processes and strategies and allow for greater differentiation. The activities enable all students of different abilities to be working on the same problem at any one time, but allow students to tackle the problem at different levels.

To get the most out of these activities, reflection time needs to be incorporated into each lesson. This doesn't need to be just at the end of the lesson but can be at various times throughout the lesson too. This gives the students time to share their strategies with the class and see how other students are solving the same problems. It's important for students to see that they all might have the right answer but there are many ways to get to that answer. Offering students this time means they can learn from each other and provides assistance to those students who might be struggling by giving them a strategy to try.

The book is divided into six sections:

Section 1: Number And Place Value

Section 2: Fractions, Decimals And Money

Section 3: Patterns And Algebra

Section 4: Shapes And units and Measurement

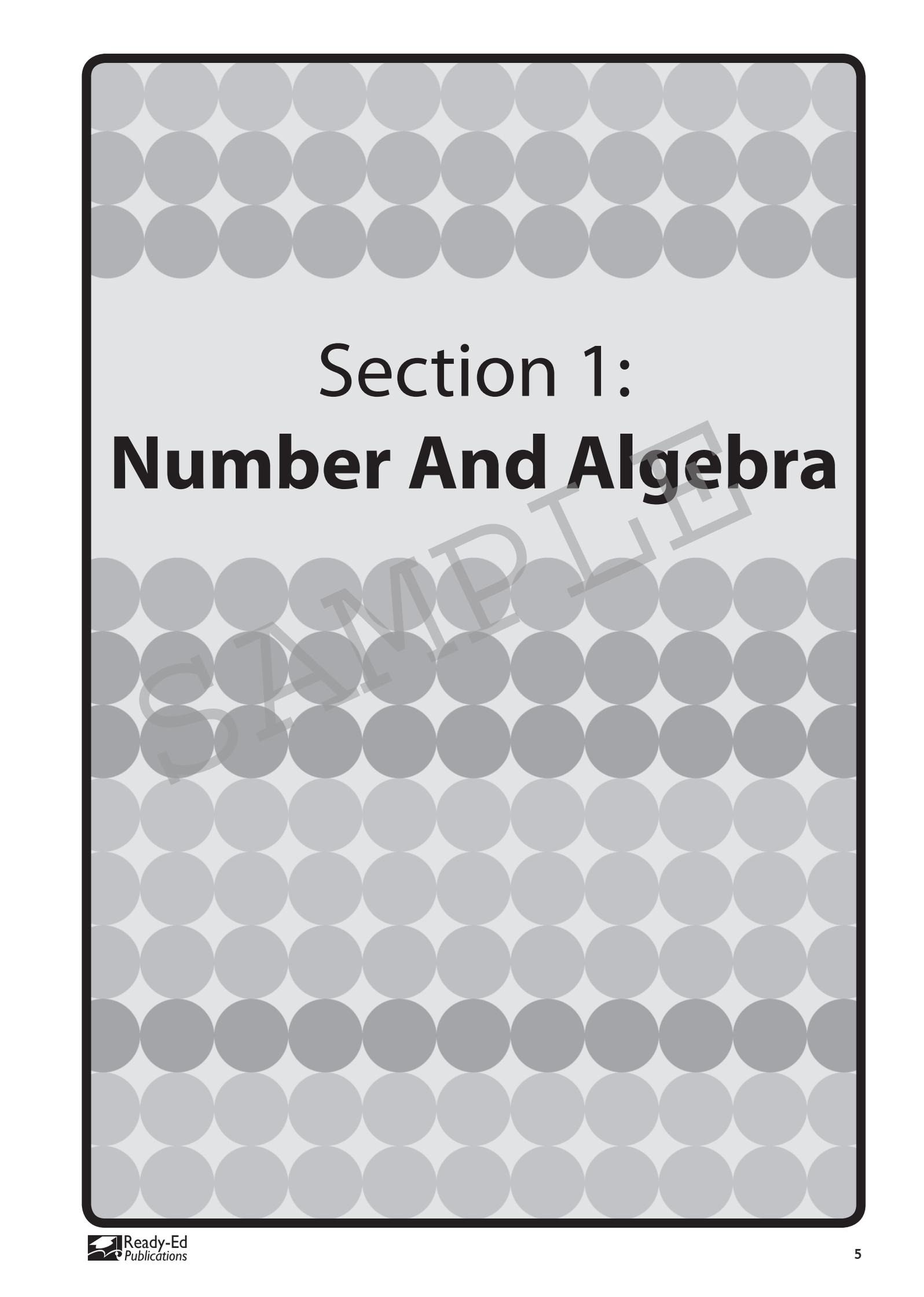
Section 5: Location And Transformation

Section 6: Chance And Data

As teachers, the questions we ask can help the students delve deeper and think more critically about their learning. Try using some of these questions in your lessons:

1. Is there another way you could work that out?
2. Have you found every possible answer?
3. What would happen if ... ?
4. Is there a pattern?
5. You and ... have different answers... who is right?
6. You and ... have the same answer but different working out. Share with each other what you did.
7. Can you prove it?

With the help of this book, you can ensure that you are making maths fun and engaging for your students.



Section 1:

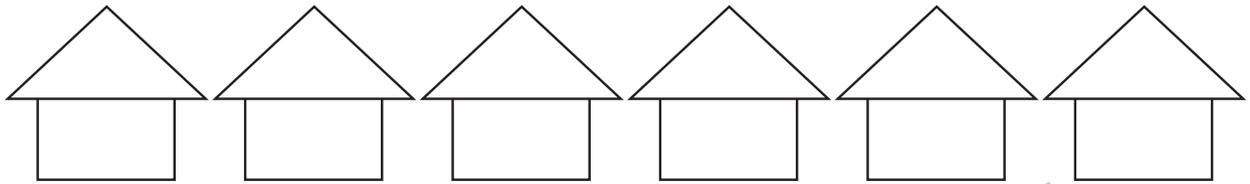
Number And Algebra

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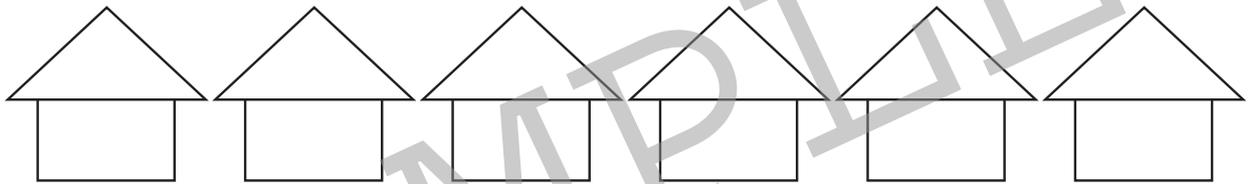
House Patterns

The numbers on the houses in the five streets below make a pattern. Roll a dice to find one of the house numbers in Street 1, then create a pattern using this rolled number. Repeat this for each street. You should end up with 5 different patterns.

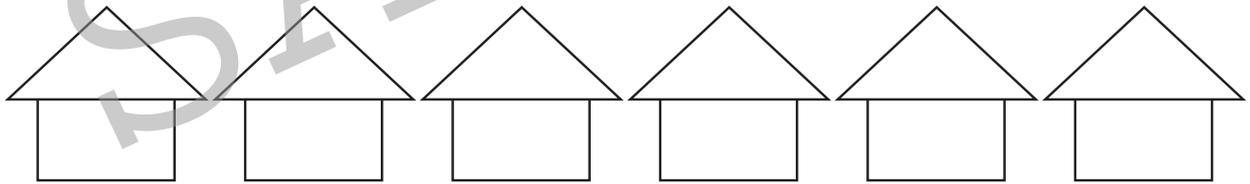
Street 1



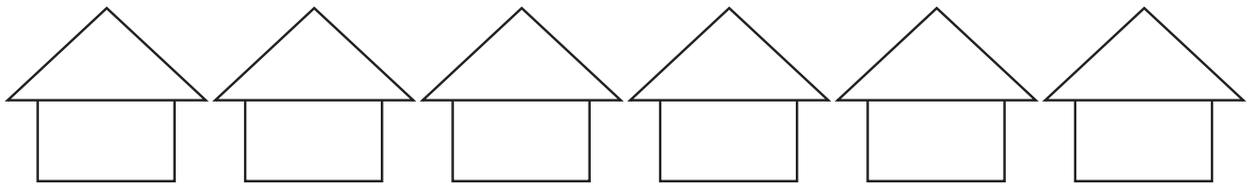
Street 2



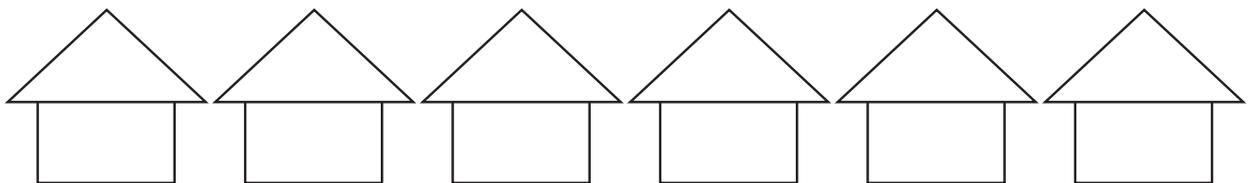
Street 3



Street 4



Street 5



What's The Pattern?

Complete all the patterns below and explain them.

1. (20) (30) (40) () () () () () ()

Explain the pattern: _____

2. (8) (10) (12) (14) () () () () ()

Explain the pattern: _____

3. (15) (20) (25) () () () () () ()

Explain the pattern: _____

Now create three patterns of your own.

4. () () () () () () () () ()

Explain the pattern: _____

5. () () () () () () () () ()

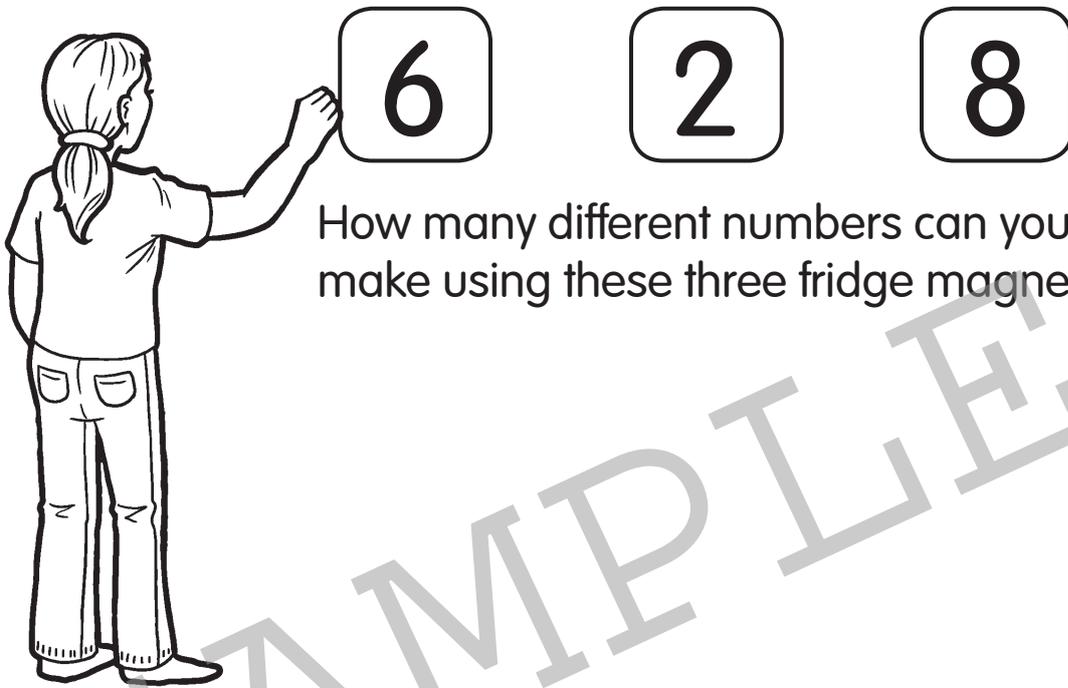
Explain the pattern: _____

6. () () () () () () () () ()

Explain the pattern: _____

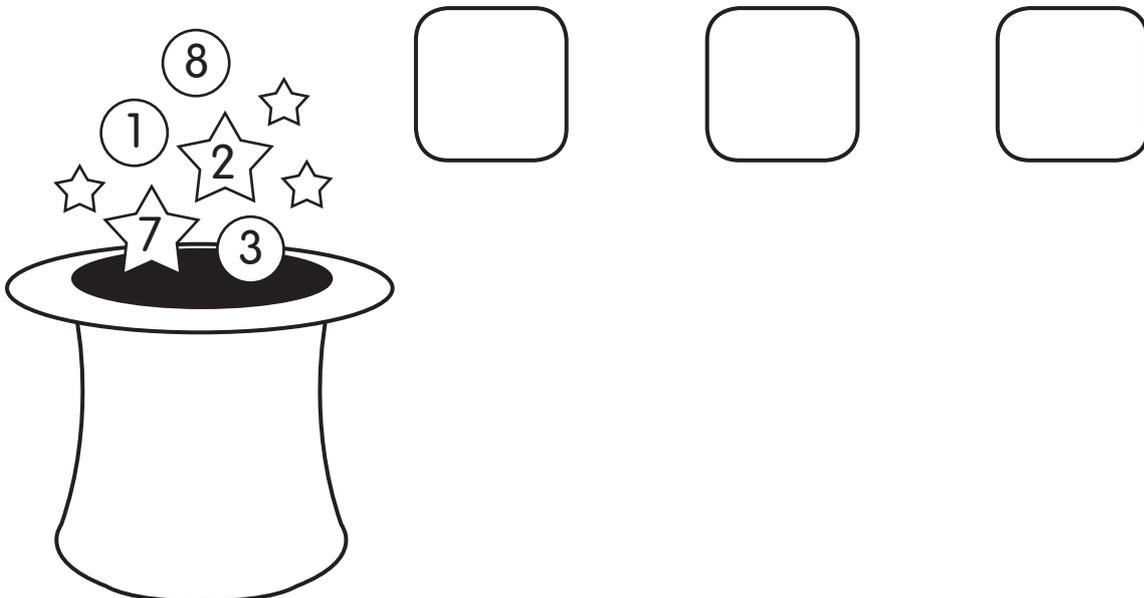
How Many Numbers?

1. Kai's mum is trying to find all the number magnets to put back on the fridge. She is having a bit of trouble finding them all. The only numbers she can find are 6, 2 and 8.



How many different numbers can you make using these three fridge magnets?

2. Pull three numbers out of a hat (or you could use playing cards or dice). Using your three digits, how many different numbers can you make?



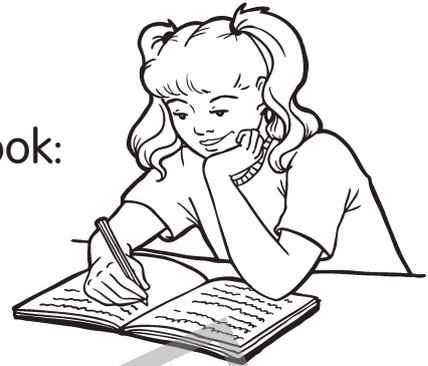
Adding Strategies

1. In class the children are given this problem:

$$5 + 7 =$$

I notice that my friend writes in her book:

$$5 + 5 + 2 =$$



Why does she write it like this? Will it get her the right answer? What strategy is she using?

2. How could I use my friend's strategy to solve these problems?

$$\mathbf{a.} \quad 9 + 4 =$$

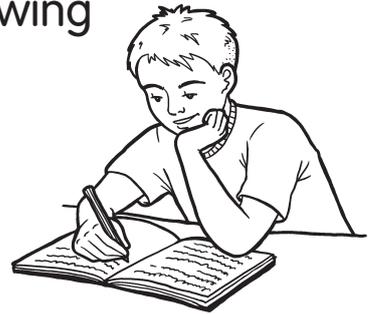
$$\mathbf{b.} \quad 3 + 8 =$$

$$\mathbf{c.} \quad 7 + 6 =$$

Subtraction Strategies

1. I am trying to find the answer to the following problem:

$$14 - 6 = ?$$



My friend tries to help me. He does this:

$$14 - 4 = \quad \rightarrow \quad 10 - 2 =$$

What is the answer? Will this way of working out always get him the right answer? What strategy is he using?

2. How could I use my friend's strategy to solve these problems?

a. $16 - 7 =$

b. $12 - 5 =$

c. $24 - 8 =$

Shooting Hoops

Brad and Matt are shooting hoops in Matt's backyard to see who can get the highest score in 5 minutes. After the first minute the scores are even. What might their scores be and what would the total be if they were added together? Complete the chart below with the possibilities.



Brad's Score	Matt's Score	Total After 1 Minute	Total After 2 Minutes

Extra!

By the end of the second minute they have each doubled their score which means the scores are still even and the total had doubled! See if you can double the totals above. Write the answers in red pencil.

Game Scores

Julie and Dean are playing a card game and so far the difference between their two scores is 9 points. What could their scores be? Complete the chart below with the possibilities.



Julie's Score	Dean's Score

Extra!

I later found out that it was Dean who was winning by 9 points. Julie's score was less than 20 and Dean's was more than 20. What do you think their actual scores are?
