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**HAWKER BROWNLOW**  
E D U C A T I O N

*Maths the Write Way, Level 2*, was written by Brian E. Enright,  
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## ★ TO THE TEACHER ★

### Book 2, CSF Level 2 and 3

One of the most important aspects of teaching maths is communication. Writing, speaking, explaining or drawing can help your students internalise what they have learned and clarify their own thinking. Communication can also act as a powerful tool for you to assess the thinking of your students.

Your students should be encouraged to use strategies that foster the art of communication. We have incorporated a variety of strategies for your students to utilise in *Maths the Write Way*. These include asking the students to:

- Write their own word problems
- Communicate orally
- Identify key words and explain their importance
- Create their own games, puzzles, poems
- Summarise their work
- Investigate other ways to solve a problem
- Make predictions and draw conclusions
- Work with a group to share ideas and solve problems.

*Maths the Write Way* contains seven lessons. Each lesson includes two Investigations, two Extensions and four Assessments. Two Assessments are with open-ended responses whilst two utilise multiple choice format

Vocabulary activities, following Lessons 3 and 7, emphasise the importance of mathematical language. Two mini-reviews and a Final Review will help you to assess the work of your students.

In *Maths the Write Way*, we have provided a forum for you to instruct as well as assess. We encourage students to look for a variety of ways to solve problems. The process – not just the solution – must be emphasised. Working and sharing ideas in co-operative groups will enhance understanding and communication.

The Teacher Guide includes:

- Listing of lesson objectives and necessary materials
- Key vocabulary and concepts for the lesson
- Suggestions for discussing key mathematical concepts
- Sample solutions to all Investigations and Assessments
- Suggested strategies for solving problems
- Reproducible pages for use with selected activities

The program will with a variety of instructional approaches. You may want to complete some activities with the whole class. Others may be more appropriate for individuals or small groups. Depending on your students' reading abilities, you may want to read aloud the directions for each activity before assigning it. Most investigations end with an oral explanation and/or writing activity. If students are not ready to write, you may want to record their answers on an experience chart. The oral explanations and writing activity are crucial to the Investigations, as they help students clarify thinking.

We are sure you will find *Maths the Write Way* a valuable resource for supplementing and enhancing your mathematics instructional program.

## ★ INVESTIGATION 1 ★

José's teacher wrote the digits 6, 8 and 2 on the board. She asked José to use all three digits to write the largest number that he could.

**Step 1:** Look at the three digits. Then look at José's answer.

**Step 2:** Tell why you think José's answer is right or wrong. If you have a different answer, show it in the boxes below. Then share your answer with your group.

José's Answer

682

**Hint:** Think about place value.

**Solution:**

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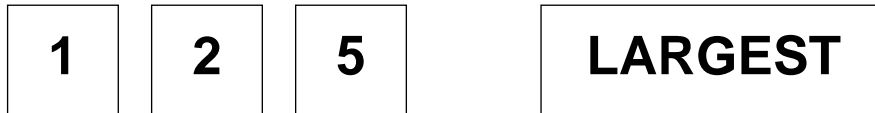
My Number

<input type="text"/>	<input type="text"/>	<input type="text"/>
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## ★ EXTENSION ★

Play a game with your partner. Put the number cards in a stack with the numbers facing up. Put the size cards in a stack with the words facing down. Take 3 cards from the number stack and one card from the word stack. Make a 3-digit number with the number cards. Try to make the largest number, the smallest number or a number between the largest and smallest number. Do what your word card says.

Example: Imagine these are your cards. Your answer is 521.



If an answer is correct, the sum of your digits is your score. The score for the example is  $5 + 2 + 1 = 8$ . Write your numbers and score in the Solution. Return the number cards to the stack and shuffle the stack. Take turns and play until the size cards are all used. The highest score wins.

**Hint:** Don't forget about place value.

**Solution:**

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### Assessment 1

What is the value of the 7 in 738? Circle the answer.

7                  70                  700                  738

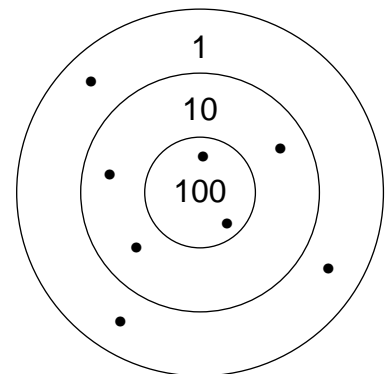
### Assessment 2

The dots show the shots on a target board. What is the score? Explain how you got your answer.

**Solution:**

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## Part B

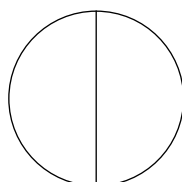
### ★ INVESTIGATION 2 ★

The symbol  $>$  means **is greater than**.

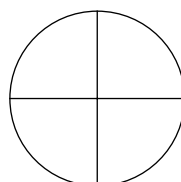
The symbol  $<$  means **is less than**.

The symbol  $=$  means **is equal to**.

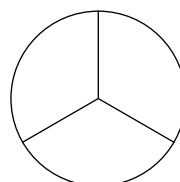
These circles are divided into equal parts.



A



B



C

- Colour  $\frac{1}{2}$  of circle A red.
- Colour  $\frac{1}{4}$  of circle B blue.
- Colour  $\frac{1}{3}$  of circle C orange.

**Step 1:** Look at the examples in the Solution. Do you think the examples are correct? Circle Yes or No for each example.

**Step 2:** Explain why the examples are right or wrong.

**Hint:** Use the circles above to help you.

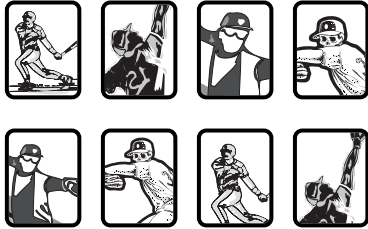
#### Solution:

<u>Example</u>	<u>Circle Answer</u>		<u>Why?</u>
1. $\frac{1}{2} < \frac{1}{4}$	Yes	No	_____
2. $\frac{1}{3} < \frac{1}{2}$	Yes	No	_____
3. $\frac{1}{2} = \frac{1}{3}$	Yes	No	_____

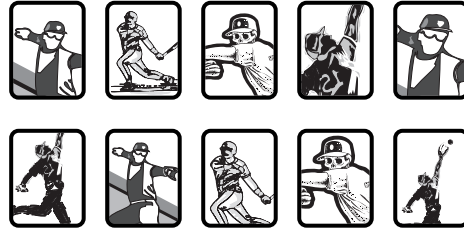
**★ EXTENSION ★**

Tyrone has 8 baseball cards. Tyrone gives his brother  $\frac{1}{2}$  of his cards. Nelson has 10 baseball cards. Nelson also gives his brother  $\frac{1}{2}$  of his cards. Who gave away more baseball cards? Explain how you found your answer.

Tyrone's cards



Nelson's cards



**Hint:** Use the pictures of the cards to help you find your answer.

**Solution:**

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**Assessment 1**

Circle the smallest fraction.

$\frac{1}{2}$       $\frac{1}{3}$       $\frac{1}{5}$       $\frac{1}{4}$

**Assessment 2**

Draw smiling faces on  $\frac{1}{2}$  of these circles.

Explain how you got your answer.

**Solution:**

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