



# AUSTRALIAN MATHS TRUST

Maths Challenge  
Upper Primary: Years 5–6  
Practice Problem

## UP3: Five-by-Five Square

The  $5 \times 5$  grid below has rows labelled **A** to **E** and columns labelled **1** to **5** as shown. These labels are used to name the squares in the grid. For example, **D3** is the middle square in row **D**.

		Columns				
		1	2	3	4	5
Rows	A	Dark	Light	Dark	Light	Dark
	B	Light	Dark	Light	Dark	Light
	C	Dark	Light	Dark	Light	Dark
	D	Light	Dark	Light	Dark	Light
	E	Dark	Light	Dark	Light	Dark

## I3: Questions

One of the whole numbers from **1** to **5** is placed in each square so that all the numbers in each row and each column are different. The following clues and questions apply to one such placement of numbers.

**The sum of the numbers in the dark squares of column 4 is 9.**

- a. What is the sum of the numbers in the light squares of column 4? Explain your answer.

**The sum of the numbers in the dark squares of row C is 7.**

- b. What is the number in the square C4? Explain your answer.



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## I3: Questions cont.

**The sum of the numbers in the light squares of column 2 is 8.**

c. What is the sum of the numbers in the light squares of row A?  
Explain your answer.

**The sum of the numbers in the dark squares of row B is less than the sum of the numbers in the dark squares of row D.**

d. What is the number in the square D4? Explain your answer.