

# Reasoning and Problem Solving

## Step 7: The 2 Times-Table

### National Curriculum Objectives:

Mathematics Year 2: (2C6) [Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers](#)

Mathematics Year 2: (2C7) [Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication \( \$\times\$ \), division \( \$\div\$ \) and equals \(=\) signs](#)

Mathematics Year 2: (2C8) [Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts](#)

### Differentiation:

Questions 1, 4 and 7 (Reasoning)

**Developing** Use knowledge of the 2 times-table (up to 5x) to explain why a statement is true or false.

**Expected** Use knowledge of the 2 times-table (up to 12x) to explain why a statement is true or false.

**Greater Depth** Use knowledge of the 2 times-table, beyond 12x (using related facts from the known times-table), to explain why a statement is true or false.

Questions 2, 5 and 8 (Reasoning)

**Developing** Compare two statements using knowledge of the 2 times-table (up to 5x).

**Expected** Compare two statements using knowledge of the 2 times-table (up to 12x).

**Greater Depth** Compare two statements using knowledge of the 2 times-table (beyond 12x), using related facts from the known times table.

Questions 3, 6 and 9 (Problem Solving)

**Developing** Use knowledge of the 2 times-table (up to 5x) to arrange cards to produce a correct statement.

**Expected** Use knowledge of the 2 times-table (up to 12x) to arrange cards to produce a correct statement.

**Greater Depth** Use knowledge of the 2 times-table (beyond 12x, using related facts from the known times-table) to arrange cards to produce a correct statement.

[More resources](#) which follow the same small steps as White Rose.

Did you like this resource? Don't forget to [review](#) it on our website.

## The 2 Times-Table

1a. There are 2 pens in a pack.

Aleena says,



I bought 2 packs so I have 4 pens.

Is she correct?

Show me why.



R

## The 2 Times-Table

1b. There are 2 biscuits in a packet.

Kevin says,



I have 5 packets so I have 9 biscuits.

Is he correct?

Show me why.



R

2a. Todd and Liz borrow books from the library.

Todd says,



I have more because I have 4 lots of 2 books.

Liz says,

I have more because I have 2 lots of 3 books.



Who has the most books?



PS

2b. Jordan and Lewis buy chocolate bars from the tuck shop.

Jordan says,



I have more because I have 5 lots of 2 bars.

Lewis says,

I have more because I have 2 lots of 5 bars.



Who has the most chocolate bars?



PS

3a. Use the cards below to complete the statement. You may use the cards more than once.

Find 2 possibilities.

$$\square \times 2 = \square$$

2

8

4

1



PS

3b. Use the cards below to complete the statement. You may use the cards more than once.

Find 2 possibilities.

$$\square \times 2 = \square$$

2

6

3

4



PS

## The 2 Times-Table

4a. There are 2 books in a pack.

Jose says,



I bought 8 packs so I have 15 books.

Is he correct?

Show me why.



R

## The 2 Times-Table

4b. There are 2 balls in a box.

Ruby says,



I have 11 boxes so I have 22 balls.

Is she correct?

Show me why.



R

5a. Imani and Scott buy stickers for their collections.

Imani says,



I have more because I have 10 lots of 2 stickers.

Scott says,

I have more because I have 2 lots of 8 stickers.



Who has the most stickers?



PS

5b. Leila and Nina buy sweets from the shop.

Leila says,



I have more because I have 9 lots of 2 sweets.

Nina says,

I have more because I have 2 lots of 7 sweets.



Who has the most sweets?



PS

6a. Use the cards below to complete the statement. You may use the cards more than once.

Find 2 possibilities.

$$\square \times 2 = \square \square$$



PS

6b. Use the cards below to complete the statement. You may use the cards more than once.

Find 2 possibilities.

$$\square \times 2 = \square \square$$



PS

## The 2 Times-Table

## The 2 Times-Table

7a. There are 2 batteries in a pack.

Toby says,



I bought 13 packs so I have 26 batteries.

Is he correct?

Show me why.



R

7b. There are 2 crayons in a box.

Tina says,



I have 17 boxes so I have 43 crayons.

Is she correct?

Show me why.



R

8a. Simon and Cali buy pencils for their colouring books.

Simon says,



I have more because I have 18 lots of 2 pencils.

Cali says,

I have more because I have 2 lots of 19 pencils.



Who has the most pencils?



PS

8b. Niamh and Mick count the badges they own.

Niamh says,



I have more because I have 15 lots of 2 badges.

Mick says,

I have more because I have 2 lots of 15 badges.



Who has the most badges?



PS

9a. Use the cards below to complete the statement. You may use the cards more than once.

Find 2 possibilities.

$$1 \square \times 2 = \square \square$$



PS

9b. Use the cards below to complete the statement. You may use the cards more than once.

Find 2 possibilities.

$$1 \square \times 2 = \square \square$$



PS

## Reasoning and Problem Solving The 2 Times-Table

### Developing

- 1a. Yes,  $2 \times 2 = 4$   
2a. Todd:  $4 \times 2 = 8$ ; Liz:  $2 \times 3 = 6$   
Todd has the most.  
3a.  $1 \times 2 = 2$ ;  $2 \times 2 = 4$ ;  $4 \times 2 = 8$

### Expected

- 4a. No,  $8 \times 2 = 16$   
5a. Imani:  $10 \times 2 = 20$ ; Scott:  $2 \times 8 = 16$   
Imani has the most.  
6a.  $5 \times 2 = 10$ ;  $6 \times 2 = 12$

### Greater Depth

- 7a. Yes,  $2 \times 13 = 26$   
8a. Simon:  $18 \times 2 = 36$ ; Cali:  $2 \times 19 = 38$   
Cali has the most.  
9a.  $11 \times 2 = 22$ ;  $12 \times 2 = 24$ ;  $14 \times 2 = 28$

## Reasoning and Problem Solving The 2 Times-Table

### Developing

- 1b. No,  $2 \times 5 = 10$   
2b. Jordan:  $5 \times 2 = 10$ ; Lewis:  $2 \times 5 = 10$   
Neither, they have the same.  
3b.  $2 \times 2 = 4$ ;  $3 \times 2 = 6$

### Expected

- 4b. Yes,  $11 \times 2 = 22$   
5b. Leila  $9 \times 2 = 18$ ; Nina  $2 \times 7 = 14$   
Leila has the most.  
6b.  $6 \times 2 = 12$ ;  $7 \times 2 = 14$

### Greater Depth

- 7b. No,  $2 \times 17 = 34$   
8b. Niamh:  $15 \times 2 = 30$ ; Mick:  $2 \times 15 = 30$   
Neither. They have the same.  
9b.  $11 \times 2 = 22$ ;  $13 \times 2 = 26$ ;  $16 \times 2 = 32$