# Reasoning and Problem Solving Step 9: The 10 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

#### Differentiation:

Questions 1, 4 and 7 (Problem Solving)

Developing Match the multiplication equations to the correct Base 10. Questions to support applying knowledge of the 10 times table. Pictorial support given.

Expected Match the multiplication equations to the correct answer. Questions to support applying knowledge of the 10 times table, including multiplying by 0.

Greater Depth Match the multiplication equations to the correct answer. Questions to support applying knowledge of the 10 times table beyond 12 x 10 by using multiplication facts.

Questions 2, 5 and 8 (Reasoning)

Developing Explain if a given statement is correct. Questions to support applying knowledge of the 10 times table. Pictorial support given.

Expected Explain if a given statement is correct. Questions to support applying knowledge of the 10 times table.

Greater Depth Explain if a given statement is correct. Questions to support applying knowledge of the 10 times table beyond  $12 \times 10$  by using multiplication facts.

Questions 3, 6 and 9 (Reasoning)

Developing Solve a one step word problem. Questions to support applying knowledge of the 10 times table. Pictorial support given.

Expected Solve a two step word problem. Questions to support applying knowledge of the 10 times table. Pictorial support given.

Greater Depth Solve a two step word problem. Questions to support applying knowledge of the 10 times table beyond 12 x 10 by using multiplication facts. Limited pictorial support.

More Year 2 Multiplication and Division resources.

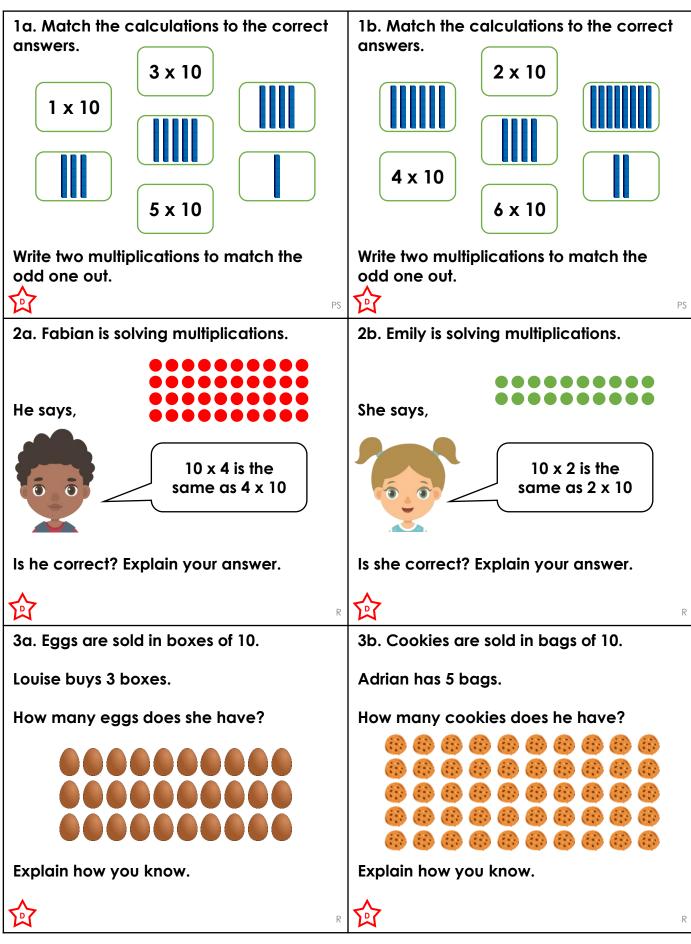
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## The 10 Times Table

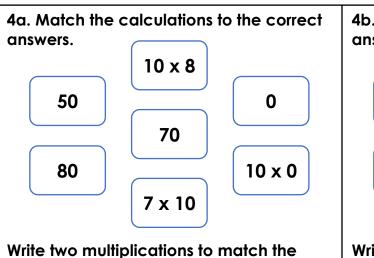
## The 10 Times Table





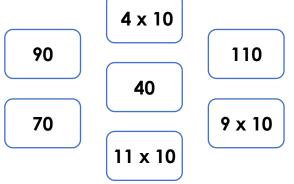
## The 10 Times Table

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4b. Match the calculations to the correct answers.

4 x 10



Write two multiplications to match the odd one out.



5a. Josie is solving multiplications.

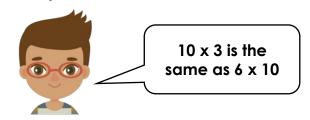
odd one out.

She says,

tions. 5b. Yusef is solving multiplications.

10 x 7 is the same as 7 x 10

He says,



Is she correct? Explain your answer.

Is he correct? Explain your answer.



6a. Blueberries are sold in packs of 10.

Sara has 40 blueberries.

How many packs did she buy?



If Sara eats 1 pack, how many blueberries will she have left?

Explain how you know.

6b. Pencils are sold in packs of 10.

Harry has 20 pencils.

How many packs did he buy?



If Harry gives 1 pack to a friend, how many pencils will he have left?

Explain how you know.



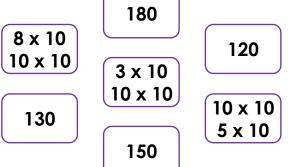




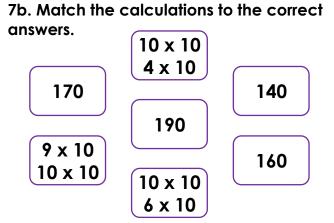
## The 10 Times Table

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Write two multiplications to match the odd one out.



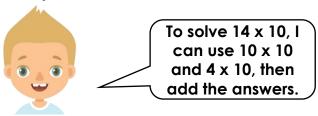
Write two multiplications to match the odd one out.



8a. Jake is solving multiplications.

8b. Laura is solving multiplications.

He says,



Is he correct? Explain your answer.

She says,



To solve 16 x 10, I can use 9 x 10 and 7 x 10, then add the answers.

Is she correct? Explain your answer.



9a. Sweets are sold in jars of 10.

Jess and Lucy have 110 sweets.



9b. There are 10 grapes in each bunch

Tim and Milo have 120 grapes.



Jess bought 5 jars of sweets. How many jars did Lucy buy?

If Lucy eats 1 jar of sweets, how many sweets will Jess and Lucy have left?

Explain how you know.

Tim bought 6 bunches of grapes. How many bunches did Milo buy?

If Tim eats 3 bunches, how many grapes will Tim and Milo have left?

Explain how you know.



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## Reasoning and Problem Solving The 10 Times Table

#### **Developing**

1a.  $3 \times 10 = 30$ ,  $1 \times 10 = 10$ ,  $5 \times 10 = 50$ ; The odd one out is 40;  $4 \times 10 = 40$ ,  $10 \times 4 = 40$ 2a. Fabian is correct because both  $4 \times 10$  and  $10 \times 4 = 40$ .

3a. Louise has 30 eggs because she has 3 boxes with 10 in each box;  $3 \times 10 = 30$ .

#### **Expected**

4a.  $10 \times 8 = 80$ ,  $7 \times 10 = 70$ ,  $10 \times 0 = 0$ ; The odd one out is 50:  $5 \times 10 = 50$ ,  $10 \times 5 = 50$  5a. Josie is correct because both  $7 \times 10$  and  $10 \times 7 = 70$ .

6a. Sara bought 4 packs of blueberries. If she eats 1 pack she will have 30 blueberries left because 4 - 1 = 3 and  $3 \times 10 = 30$ .

#### <u>Greater Depth</u>

7a. 8 x 10 and 10 x 10 = 180, 10 x 10 and 5 x 10 = 150, 3 x 10 and 10 x 10 = 130; The odd one out is 120: various answers, for example:  $6 \times 10$  and  $6 \times 10 = 120$  8a. Jake is correct because  $10 \times 10 = 100$ ,  $4 \times 10 = 40$  and 100 + 40 = 140. 9a. Lucy bought 6 jars of sweets. If Lucy eats 1 jar of sweets then they will have 100 sweets left because  $1 \times 10 = 10$ , 110 - 10 = 100 and  $100 = 10 \times 10$ 

## Reasoning and Problem Solving The 10 Times Table

#### **Developing**

1b.  $4 \times 10 = 40$ ,  $2 \times 10 = 20$ ,  $6 \times 10 = 60$ ; The odd one out is 80:  $8 \times 10 = 80$ ,  $10 \times 8 = 80$ 2b. Emily is correct because both  $10 \times 2$  and  $2 \times 10 = 20$ .

3b. Adrian has 50 cookies because he has 5 bags with 10 in each bag;  $5 \times 10 = 50$ .

#### **Expected**

4b. 9 x 10 = 90, 4 x 10 = 40, 11 x 10 = 110; The odd one out is 70: 7 x 10 = 70, 10 x 7 = 70

5b. Yusef is incorrect because  $10 \times 3 = 30$  but  $6 \times 10 = 60$ .

6b. Harry bought 2 packs of pencils. If he gives 1 pack to a friend he will have 10 pencils left because 2 - 1 = 1 and  $1 \times 10 = 10$ .

#### **Greater Depth**

7b.  $10 \times 10$  and  $4 \times 10 = 140$ ,  $10 \times 10$  and  $6 \times 10 = 160$ ,  $9 \times 10$  and  $10 \times 10 = 190$ ; The odd one out is 170: various answers, for example: 9 and 10 and  $8 \times 10 = 170$ 8b. Laura is correct because  $9 \times 10 = 90$ ,  $7 \times 10 = 90$ 

8b. Laura is correct because 9 x 10 = 90, 7 x 10 = 70 and 90 + 70 = 160.

9b. Milo bought 6 bunches of grapes. If Tim eats 3 bunches of grapes there will be 90 grapes left because  $3 \times 10 = 30$ , 120 - 30 = 90,  $90 = 10 \times 9$ 

