

Reasoning and Problem Solving

Step 4: The Multiplication Symbol

National Curriculum Objectives:

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 (Problem Solving)

Developing Use digit cards to create a multiplication sum with the greatest possible answer using knowledge of repeated addition. Uses up to five equal groups of 2 or 10.

Expected Use digit cards to create a multiplication sum with the greatest possible answer using knowledge of repeated addition. Uses up to ten equal groups of 2, 5 or 10.

Greater Depth Use digit cards to create a multiplication sum with the greatest possible answer using knowledge of repeated addition. Uses up to twelve equal groups of 2, 5, 10 or 3.

Questions 2, 5 and 8 (Reasoning)

Developing Compare the multiplication and repeated addition statements using up to five equal groups of 2 and 10.

Expected Compare the multiplication and repeated addition statements using up to ten equal groups of 2, 5 and 10.

Greater Depth Compare the multiplication and repeated addition statements using up to twelve equal groups of 2, 5, 10 and 3.

Questions 3, 6 and 9 (Reasoning)

Developing Explain who has given the correct matching statement by comparing multiplication and repeated addition. Uses up to five equal groups of 2 or 10.

Expected Explain who has given the correct matching statement by comparing multiplication and repeated addition. Uses up to ten equal groups of 2, 5 or 10.

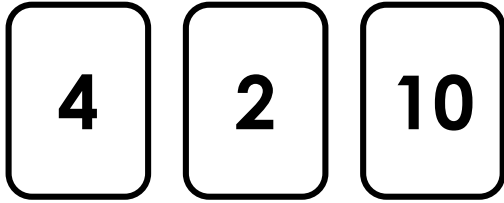
Greater Depth Explain who has given the correct matching statement by comparing multiplication and repeated addition. Uses up to twelve equal groups of 2, 5, 10 or 3.

[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 Multiplication Symbol

1a. Choose 2 of these number cards to make a multiplication that gives you the greatest answer.



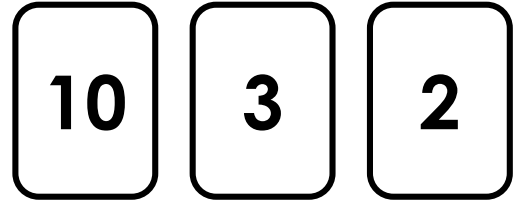
Show your working.



PS

The Multiplication Symbol

1b. Choose 2 of these number cards to make a multiplication that gives you the greatest answer.



Show your working.



PS

2a. True or false?

$$2 + 2 + 2 > 2 \times 2$$

Explain your answer.



R

2b. True or false?

$$3 \times 2 > 2 + 2 + 2$$

Explain your answer.



R

3a. There were 4 bags with 2 balls in each bag.



Emmy

The multiplication for this problem is 5×2 .

The repeated addition for this problem is $2 + 2 + 2 + 2$.



Anton

Who is correct? Prove it!



R

3b. A fisherman had 2 nets with 10 fish in each net.



Rayan

The multiplication for this problem is 3×10 .

The repeated addition for this problem is $10 + 10$.



Stephanie

Who is correct? Prove it!

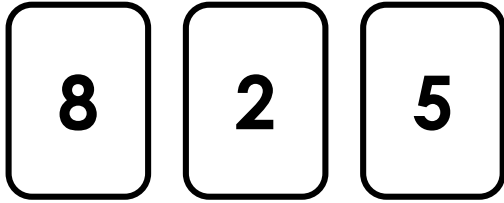


R

The Multiplication Symbol

The Multiplication Symbol

4a. Choose 2 of these number cards to make a multiplication that gives you the greatest answer.

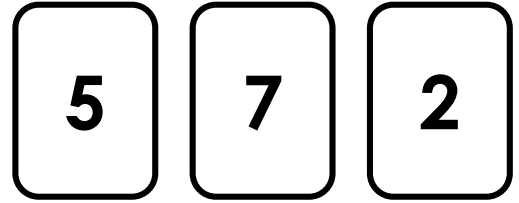


Show your working.



PS

4b. Choose 2 of these number cards to make a multiplication that gives you the greatest answer.



Show your working.



PS

5a. True or false?

$$\begin{array}{l} 5 + 5 + 5 + 5 \\ + 5 + 5 + 5 \end{array} < 5 \times 10$$

Explain your answer.



R

5b. True or false?

$$10 \times 2 > 5 + 5 + 5 + 5$$

Explain your answer.



R

6a. A farmer had 7 fields. He put 10 cows in each field.



Grace

The multiplication for this problem is 7×7 .

The repeated addition for this problem is $10 + 10 + 10 + 10 + 10 + 10$.



Chen

Who is correct? Prove it!



R

6b. There are 9 plates on a table with 5 sausages on each plate.



Jamie

The multiplication for this problem is 9×5 .

The repeated addition for this problem is $5 + 5 + 5 + 5 + 5 + 5 + 5$.



Bethany

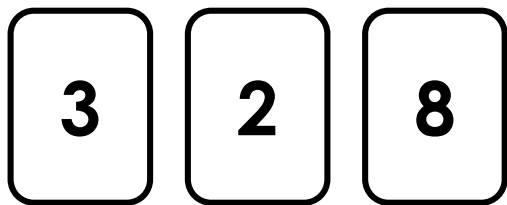
Who is correct? Prove it!



R

The Multiplication Symbol

7a. Choose 2 of these number cards to make a multiplication that gives you the greatest answer.



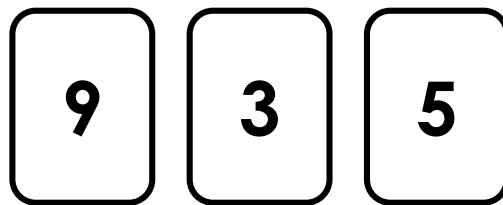
Show your working.



PS

The Multiplication Symbol

7b. Choose 2 of these number cards to make a multiplication that gives you the greatest answer.



Show your working.



PS

8a. True or false?

$$12 \times 5 = 10 + 10 + 10 + 10 + 10 + 10$$

Explain your answer.



R

8b. True or false?

$$7 \times 3 < 2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 + 2$$

Explain your answer.



R

9a. There are 11 teams of children with 3 children in each team.



Abel

The multiplication for this problem is 11×3 .

The repeated addition for this problem is $3 + 3 + 3 + 3 + 3 + 3 + 3 + 3 + 3 + 3 + 3$.



Amya

Who is correct? Prove it!



R

9b. A farmer plants 12 rows of carrots. There are 5 carrots in each row.



Amanda

The multiplication for this problem is 12×5 .

The repeated addition for this problem is $12 + 12 + 12 + 12$.



Gabriel

Who is correct? Prove it!



R

Reasoning and Problem Solving The Multiplication Symbol

Developing

- 1a. $4 \times 10 = 40$ or $10 \times 4 = 40$. Accept workings which use repeated addition, multiplication, 'lots of' or pictorial representations.
- 2a. True; $2 + 2 + 2 = 6$ and $2 \times 2 = 4$.
- 3a. Anton; $2 + 2 + 2 + 2$ is the same as 4 lots of 2.

Expected

- 4a. $8 \times 5 = 40$ or $5 \times 8 = 40$. Accept workings which use repeated addition, multiplication, 'lots of' or pictorial representations.
- 5a. True; $5 \times 10 = 50$ and $5 + 5 + 5 + 5 + 5 + 5 + 5 = 35$.
- 6a. Chen; $10 + 10 + 10 + 10 + 10 + 10 + 10$ is the same as 7 lots of 10.

Greater Depth

- 7a. $3 \times 8 = 24$ or $8 \times 3 = 24$. Accept workings which use repeated addition, multiplication, 'lots of' or pictorial representations.
- 8a. True; both sums equal 60.
- 9a. Abel; 11×3 is the same as 11 lots of 3.

Reasoning and Problem Solving The Multiplication Symbol

Developing

- 1b. $10 \times 3 = 30$ or $3 \times 10 = 30$. Accept workings which use repeated addition, multiplication, 'lots of' or pictorial representations.
- 2b. False; both sums equal 6.
- 3b. Stephanie; $10 + 10$ is the same as 2 lots of 10.

Expected

- 4b. $5 \times 7 = 35$ or $7 \times 5 = 35$. Accept workings which use repeated addition, multiplication, 'lots of' or pictorial representations.
- 5b. False; both sums equal 20.
- 6b. Jamie; 9×5 is the same as 9 lots of 5.

Greater Depth

- 7b. $9 \times 5 = 45$ or $5 \times 9 = 45$. Accept workings which use repeated addition, multiplication, 'lots of' or pictorial representations.
- 8b. False; $2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 = 18$ and $7 \times 3 = 21$.
- 9b. Amanda; 12×5 is the same as 12 lots of 5.