

## Lesson 9– Multiplication &amp; Division – 10 Times Tables

## NC Objective:

Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers

## Resources needed:

Differentiated Sheets  
Teaching Slides

## Vocabulary:

Multiplication, division, counting,, greater than, less than, equals to

Children have counted in 10s from any given whole number. This small step is focused on the 10 times-table and it is important to include the use of zero.

Children should see the = sign at both ends of the calculation to understand what it means.

## Key Questions:

What if there were 10 packs of crayons?

If there are 50 crayons altogether, how many packets are there? How do you know?

How many tens go into 30? Can you count in 10s to 30?

What does greater than mean? What does less than mean?

## ★ Working Towards

Use the number sentences you have and work out the answer.

How many ships are there altogether?

There are  ships altogether.

$\square \times 10 = \square$

Altogether there are 50 boats. How many ships are there?

$\square \div 10 = \square$

Think of a multiplication fact for 10s to go in each box.

$\square \times 10 = \square$        $\square \div 10 = \square$

Greater      Smaller

Think of a multiplication fact for 10s to go in each box.

$\square \times 10 = \square$        $\square \div 10 = \square$

Greater      Smaller

## ★★ Working Within

Use the number sentences you have and work out the answer.

How many ships are there altogether?

There are  ships altogether.

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Altogether there are 50 boats. How many ships are there?

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Greater      Smaller

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$\square \times 10 = \square$        $\square \div 10 = \square$

Greater      Smaller

## ★★★ Greater Depth

Use the number sentences you have and work out the answer.

How many ships are there altogether?

There are  ships altogether.

$\square \times 10 = \square$

Altogether there are 50 boats. How many ships are there?

$\square \div 10 = \square$

Think of a multiplication fact for 10s to go in each box.

$\square \times 10 = \square$        $\square \div 10 = \square$

Greater      Smaller

Think of a multiplication fact for 10s to go in each box.

$\square \times 10 = \square$        $\square \div 10 = \square$

Greater      Smaller

On this sheet, children learn to count in 10s. The questions provided introduce them to the number multiplied by 10 to help them understand easily. They are also asked to think of a multiplication fact for 10s to fill in the box provided.

Children understand more about counting in 10s. On this sheet, they think of more multiplication facts for 10s to fill in the boxes provided

The word problems provided encourage the children to apply more steps in 10 times tables. On this sheet, they develop their problem solving skills and learn which techniques they prefer to solve the problems. They may have different ways to solve the problems.

## Reasoning &amp; Problem Solving

Solve Problems Using Multiplication and Division – 10 Times Tables

Reasoning & Problem Solving

On swimming race, Eoin swims 10 metres, 2 times.

Which of these calculations describe this word problem?

$10 + 2$

$2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 + 2$

$10 \times 10$

Explain why the other two does not.

Some base 10 is covered. The total is less than 80.

What could the calculation be?

$\square \times 10 = \square$

It could be  $8 \times 10$

Is Tia correct? Explain.

Solve Problems Using Multiplication and Division – 10 Times Tables

Reasoning & Problem Solving

On swimming race, Eoin swims 10 metres, 6 times.

Which of these calculations do not describe this word problem?

$10 + 6$

$6 \times 10$

$6 + 6 + 6 + 6 + 6 + 6 + 6 + 6 + 6 + 6$

$10 + 10 + 10 + 10 + 10 + 10$

Explain why.

Some base 10 is covered. The total is less than eighty.

What could the calculation be?

$\square \times 10 = \square$

It could be  $8 \times 10$

Is Tia correct? Explain.

Solve Problems Using Multiplication and Division – 10 Times Tables

Reasoning & Problem Solving

On swimming race, Eoin swims 10 metres, 5 times.

Find two different calculations which describe this word problem and two different calculations which do not describe it.

Explain your answer.

Some base 10 is covered. The total is less than 80 but greater than 6 tens.

What is the greatest number of base 10 that can be under the stain?

Is it possible that there is no base 10 under the stain? Explain.

What could the calculation be?

Explain your answer.



Answer the questions below.

- ① How many chips are there altogether?



There are  chips altogether.

$$\boxed{\phantom{00}} \times 10 = \boxed{\phantom{00}}$$

- ② How many chips are there altogether?



There are  chips altogether.

$$\boxed{\phantom{00}} \times 10 = \boxed{\phantom{00}}$$

- ③ Altogether there are 50 books, how many shelves are there?



$$\boxed{\phantom{00}} \times 10 = \boxed{\phantom{00}}$$

- ④ Altogether there are 70 books, how many shelves are there?



$$\boxed{\phantom{00}} \times 10 = \boxed{\phantom{00}}$$

- ⑤ Think of a multiplication fact for 10s to go in each box.

$3 \times 10$	<input type="text"/>	$0 \times 10$
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Greatest

Smallest



- ⑥ Think of a multiplication fact for 10s to go in each box.

$3 \times 10$	<input type="text"/>	$7 \times 10$
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Smallest

Greatest



- ⑦ Think of a multiplication fact for 10s to go in each box.

$5 \times 10$	$2 \times 10$	<input type="text"/>
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Greatest

Smallest



- ⑧ Think of a multiplication fact for 10s to go in each box.

<input type="text"/>	$4 \times 10$	$8 \times 10$
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Smallest

Greatest





Answer the questions below.

- ① How many chips are there altogether?



There are **40** chips altogether.

$$\boxed{4} \times \boxed{10} = \boxed{40}$$

- ② How many chips are there altogether?



There are **60** chips altogether.

$$\boxed{6} \times \boxed{10} = \boxed{60}$$

- ③ Altogether there are 50 books, how many shelves are there?



$$\boxed{5} \times \boxed{10} = \boxed{50}$$

- ④ Altogether there are 70 books, how many shelves are there?



$$\boxed{7} \times \boxed{10} = \boxed{70}$$

- ⑤ Think of a multiplication fact for 10s to go in each box.

$$\boxed{3 \times 10} \quad \boxed{2 \times 10} \quad \boxed{0 \times 10}$$

Greatest  $\longleftarrow$  Smallest

Example

- ⑥ Think of a multiplication fact for 10s to go in each box.

$$\boxed{3 \times 10} \quad \boxed{5 \times 10} \quad \boxed{7 \times 10}$$

Smallest  $\longrightarrow$  Greatest

Example

- ⑦ Think of a multiplication fact for 10s to go in each box.

$$\boxed{5 \times 10} \quad \boxed{2 \times 10} \quad \boxed{0 \times 10}$$

Greatest  $\longleftarrow$  Smallest

Example

- ⑧ Think of a multiplication fact for 10s to go in each box.

$$\boxed{1 \times 10} \quad \boxed{4 \times 10} \quad \boxed{8 \times 10}$$

Smallest  $\longrightarrow$  Greatest

Example



Write the calculations to match the pictures.

- ① How many chips are there altogether?



There are  chips altogether.

$$\boxed{\phantom{00}} \times 10 = \boxed{\phantom{00}}$$

- ② How many chips are there altogether?



There are  chips altogether.

$$\boxed{\phantom{00}} \times 10 = \boxed{\phantom{00}}$$

- ③ There are 8 chapters in each book, how many chapters are there in all?



$$\boxed{\phantom{00}} \times 10 = \boxed{\phantom{00}}$$

- ④ There are 10 chapters in each book, how many chapters are there in all?



$$\boxed{\phantom{00}} \times 10 = \boxed{\phantom{00}}$$

- ⑤ Think of a multiplication fact for 10s to go in each box.

$$\boxed{4 \times 10} \quad \boxed{\phantom{00}} \quad \boxed{\phantom{00}}$$

Greatest  $\leftarrow$  Smallest

- ⑥ Think of a multiplication fact for 10s to go in each box.

$$\boxed{\phantom{00}} \quad \boxed{\phantom{00}} \quad \boxed{9 \times 10}$$

Smallest  $\rightarrow$  Greatest

- ⑦ Think of a multiplication fact for 10s to go in each box.

$$\boxed{\phantom{00}} \quad \boxed{1 \times 10} \quad \boxed{\phantom{00}}$$

Greatest  $\leftarrow$  Smallest

- ⑧ Think of a multiplication fact for 10s to go in each box.

$$\boxed{\phantom{00}} \quad \boxed{6 \times 10} \quad \boxed{\phantom{00}}$$

Smallest  $\rightarrow$  Greatest



- ① How many chips are there altogether?



There are **70** chips altogether.

$$7 \times 10 = 70$$

- ② How many chips are there altogether?



There are **90** chips altogether.

$$9 \times 10 = 90$$

- ③ There are 8 chapters in each book, how many chapters are there in all?

**80 chapters**



$$8 \times 10 = 80$$

- ④ There are 10 chapters in each book, how many chapters are there in all?

**100 chapters**



$$10 \times 10 = 100$$

- ⑤ Think of a multiplication fact for 10s to go in each box.

**4 x 10**

**3 x 10**

**2 x 10**

Greatest

Smallest

Example

- ⑥ Think of a multiplication fact for 10s to go in each box.

**5 x 10**

**7 x 10**

**9 x 10**

Smallest

Greatest

Example

- ⑦ Think of a multiplication fact for 10s to go in each box.

**0 x 10**

**1 x 10**

**2 x 10**

Greatest

Smallest

Example

- ⑧ Think of a multiplication fact for 10s to go in each box.

**4 x 10**

**6 x 10**

**8 x 10**

Smallest

Greatest

Example



Show the number sentence you have used to work out the answer.

Trixie ate 35 chips while her brother ate 57 chips. If there were 10 chips in each box, how many boxes of chips were empty so far?

①





Fria got 24 chips. Andy got 56 chips. If they had to put 10 chips in each box, how many boxes they have used altogether?

②





Ryan has finished reading the 3 books while her classmate Maureen has finished reading 5 books. How many chapters they have read altogether if they have read books with 10 chapters each?

③




Mrs. Moore was reviewing the reports submitted by her top 10 students. Each report contained 10 pages. She has already reviewed 3 reports so far. How many pages does she need to review?

④

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Show the number sentence you have used to work out the answer.

Trixie ate 35 chips while her brother ate 57 chips. If there were 10 chips in each box, how many boxes of chips are empty so far?

①





Fria got 24 chips. Andy got 56 chips. If they had to put 10 chips in each box, how many boxes would they have used altogether?

②





Ryann has finished reading 3 books while her classmate Maureen has finished reading 5 books. How many chapters they have read altogether if they have read books with 10 chapters each?

③




Mrs. Moore was reviewing the reports submitted by 10 students. Each report contained 10 pages. She has already reviewed 3 reports so far.

How many more pages does she need to review?

④

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Show the number sentence you have used to work out the answer.

Trixie ate 35 chips while her brother ate 57 chips. If there were 10 chips in each box, how many boxes of chips were empty so far?

①



9 boxes



②



8 boxes



Ryan has finished reading the 3 books while her classmate Maureen has finished reading 5 books. How many chapters they have read altogether if they have read books with 10 chapters each?

③



80 chapters

④

Mrs. Moore was reviewing the reports submitted by her top 10 students. Each report contained 10 pages. She has already reviewed 3 reports so far. How many pages does she need to review?

70 pages



Show the number sentence you have used to work out the answer.

Trixie ate 35 chips while her brother ate 57 chips. If there were 10 chips in each box, how many boxes of chips are empty so far?

①



9 boxes



②



8 boxes



Ryann has finished reading 3 books while her classmate Maureen has finished reading 5 books. How many chapters they have read altogether if they have read books with 10 chapters each?

③



80 chapters

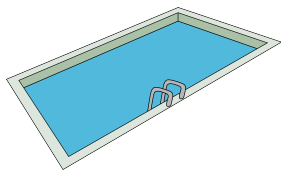
④

Mrs. Moore was reviewing the reports submitted by 10 students. Each report contained 10 pages. She has already reviewed 3 reports so far. How many more pages does she need to review?

70 pages



In a swimming race,  
Esin swims 10 metres, twice.



Which of these calculations describe this  
word problem?

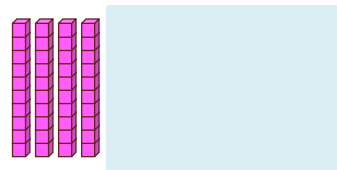
$$10 + 2$$

$$2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 + 2$$

$$10 + 10$$

Explain why the other two do not.

Some base 10 is covered.  
The total is less than 80.



What could the calculation be?

$$\underline{\quad} \times 10 = \underline{\quad}$$

Tia

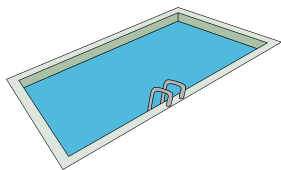


It could be  $8 \times 10$

Is Tia correct? Explain.



In a swimming race,  
Esin swims 10 metres, twice.



Which of these calculations describe this  
word problem?

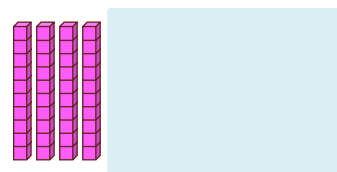
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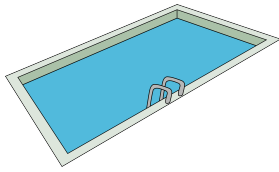
It could be  $8 \times 10$

Is Tia correct? Explain.





In a swimming race,  
Esin swims 10 metres, twice.



Which of these calculations describe this  
word problem?

She has swum 10  
metres, 2 times, not  
10 metres then 2  
metres.

$$10 + 2$$

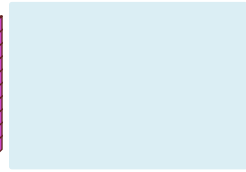
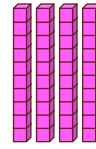
She has not swum  
2 metres, 10 times.

$$2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 + 2$$

$$10 + 10$$

Explain why the other two do not.

Some base 10 is covered.  
The total is less than 80.



What could the calculation be?

$$\underline{\quad} \times 10 = \underline{\quad}$$

It could be:  
 $5 \times 10 = 50$ ;  
 $6 \times 10 = 60$ ;  
 $7 \times 10 = 70$ .

Tia



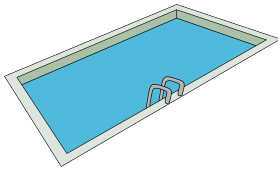
It could be  $8 \times 10$

Is Tia correct? Explain.

Tia is wrong because 80 is not less than 80, it is  
equal to 80.



In a swimming race,  
Esin swims 10 metres, twice.



Which of these calculations describe this  
word problem?

She has swum 10  
metres, 2 times, not  
10 metres then 2  
metres.

$$10 + 2$$

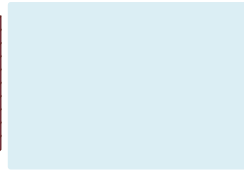
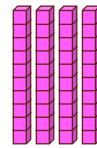
She has not swum  
2 metres, 10 times.

$$2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 + 2$$

$$10 + 10$$

Explain why the other two do not.

Some base 10 is covered.  
The total is less than 80.



What could the calculation be?

$$\underline{\quad} \times 10 = \underline{\quad}$$

It could be:  
 $5 \times 10 = 50$ ;  
 $6 \times 10 = 60$ ;  
 $7 \times 10 = 70$ .

Tia



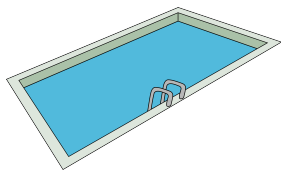
It could be  $8 \times 10$

Is Tia correct? Explain.

Tia is wrong because 80 is not less than 80, it is  
equal to 80.



In a swimming race,  
Esin swims 10 metres, 6 times.



Which of these calculations do **not** describe  
this word problem?

$$10 + 6$$

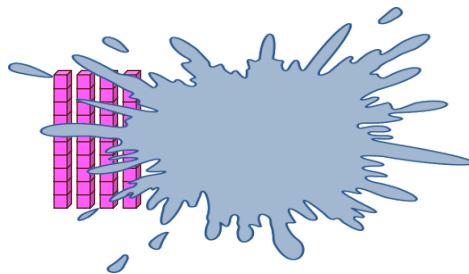
$$6 \times 10$$

$$6 + 6 + 6 + 6 + 6 + 6 + 6 + 6 + 6 + 6 + 6 + 6$$

$$10 + 10 + 10 + 10 + 10 + 10$$

Explain why.

Some base 10 is covered.  
The total is less than eighty.



What could the calculation be?

Tia

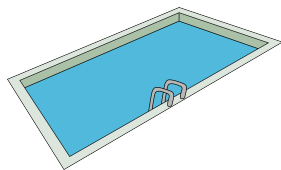


It could be  $8 \times 10$

Is Tia correct? Explain.



In a swimming race,  
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Which of these calculations do **not** describe  
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$$10 + 6$$

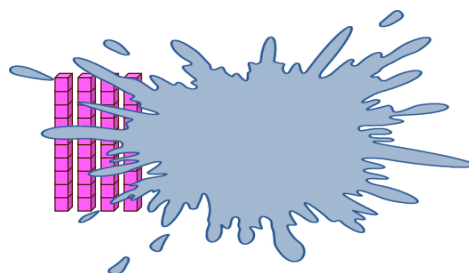
$$6 \times 10$$

$$6 + 6 + 6 + 6 + 6 + 6 + 6 + 6 + 6 + 6 + 6 + 6$$

$$10 + 10 + 10 + 10 + 10 + 10$$

Explain why.

Some base 10 is covered.  
The total is less than eighty.



What could the calculation be?

Tia



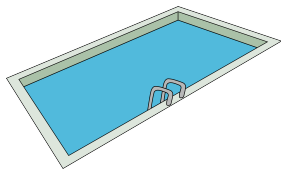
It could be  $8 \times 10$

Is Tia correct? Explain.





In a swimming race,  
Esin swims 10 metres, 5 times.

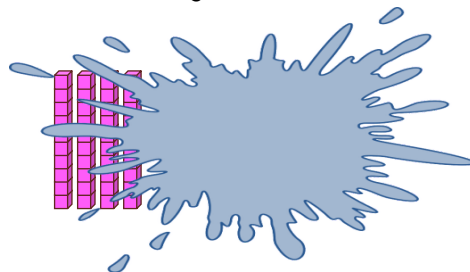


Using the numbers, find two different calculations which describe this word problem and two different calculations which do not describe it.

Explain your answer.

Some base 10 is covered.

The total is less than  
10 tens but greater than 6 tens.



What is the greatest number of base 10 that can be under the hidden part?

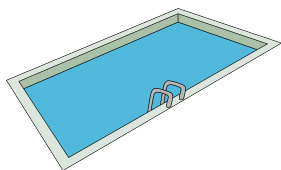
Is it possible that there is no base 10 under the hidden part? Explain.

What could the calculation be?

Explain your answer.



In a swimming race,  
Esin swims 10 metres, 5 times.

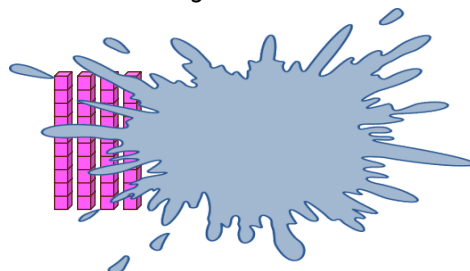


Using the numbers, find two different calculations which describe this word problem and two different calculations which do not describe it.

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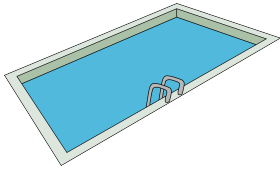
Is it possible that there is no base 10 under the hidden part? Explain.

What could the calculation be?

Explain your answer.



In a swimming race,  
Esin swims 10 metres, 5 times.



Using the numbers, find two different calculations which describe this word problem and two different calculations which do not describe it.

Calculations that describe the problem:

$$10 \times 5$$

$$10 + 10 + 10 + 10 + 10$$

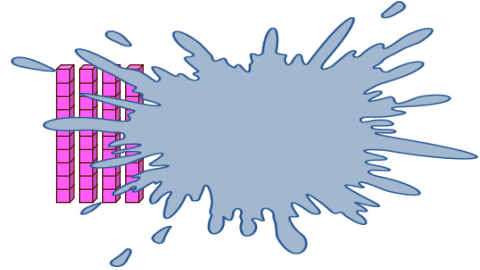
Calculations that don't describe the problem:

$10 + 5$  (She has swum 10 m, 5 times, not 10 m then 5 metres)

$5 + 5 + 5 + 5 + 5 + 5 + 5 + 5 + 5 + 5 + 5$  (she has not swum 5 metres, 10 times)

Some base 10 is covered.

The total is less than  
10 tens but greater than 6 tens.



What is the greatest number of base 10 that can be under the hidden part?

5 tens / 50 ones

Is it possible that there is no base 10 under the hidden part? Explain.

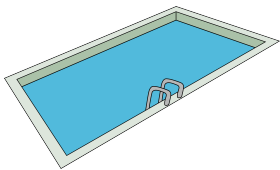
It is not because there is more than 6 tens, and we can see only four tens which equals 40.

What could the calculation be?

It could be:  $7 \times 10 = 70$ ,  $8 \times 10 = 80$  or  $9 \times 10 = 90$



In a swimming race,  
Esin swims 10 metres, 5 times.



Using the numbers, find two different calculations which describe this word problem and two different calculations which do not describe it.

Calculations that describe the problem:

$$10 \times 5$$

$$10 + 10 + 10 + 10 + 10$$

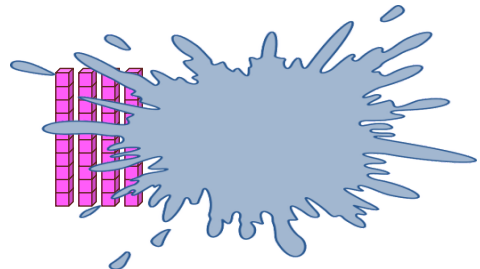
Calculations that don't describe the problem:

$10 + 5$  (She has swum 10 m, 5 times, not 10 m then 5 metres)

$5 + 5 + 5 + 5 + 5 + 5 + 5 + 5 + 5 + 5 + 5$  (she has not swum 5 metres, 10 times)

Some base 10 is covered.

The total is less than  
10 tens but greater than 6 tens.



What is the greatest number of base 10 that can be under the hidden part?

5 tens / 50 ones

Is it possible that there is no base 10 under the hidden part? Explain.

It is not because there is more than 6 tens, and we can see only four tens which equals 40.

What could the calculation be?

It could be:  $7 \times 10 = 70$ ,  $8 \times 10 = 80$  or  $9 \times 10 = 90$