Year 2 Maths

W/c - 15/6/20

Lesson 1: Multiplication and division - solving equations

Lesson 2: Multiplication and division - fact families

Lesson 3: Multiplication and division word problems

Lesson 4: Multiplication and division investigations

Lesson 1

Key Learning: to solve multiplication and division equations

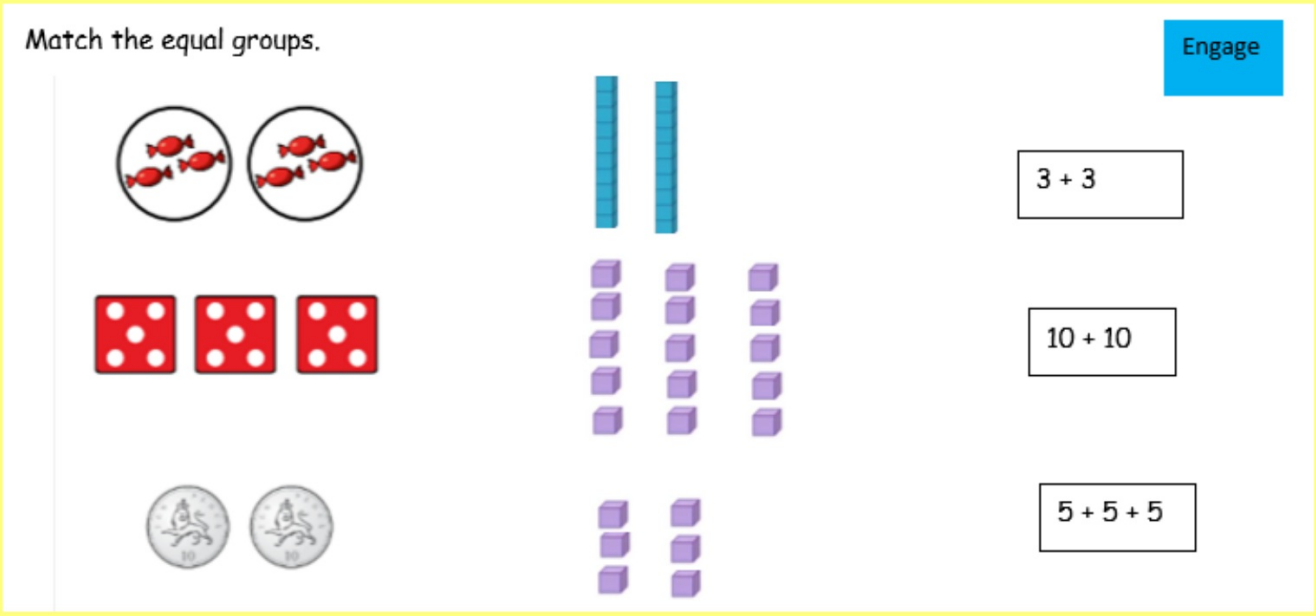
Success criteria:

- I can complete multiplication and division equations
- I can use the inverse to check my answer

multiplication division equation inverse

Match the groups...

Engage



Multiplication and division

Introduce

What strategies could you use to solve these equations?

$$12 \div 2 =$$

Instant recall of half

Counting in 2s

Sharing

$$5 \times 5 =$$

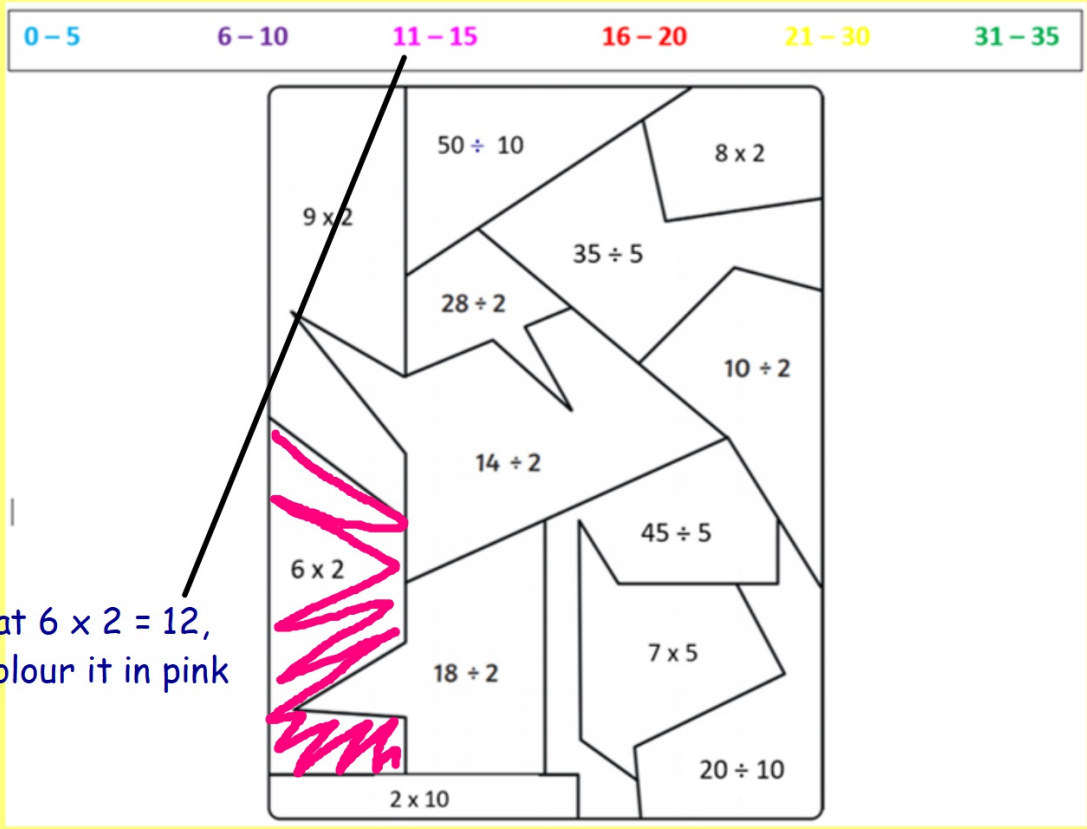
Counting in 5s

Array

Repeated addition

Solve the equations and colour them...

Consider and Practise



I know that 6 x 2 = 12,
so I will colour it in pink

Solve the equations...

Independent

Write the equations into your book or piece of paper.
You can draw the dienes or an array to help you.

Multiplication	Division
2 x 10 =	40 ÷ 5 =
6 x 5 =	80 ÷ 10 =
3 x 2 =	16 ÷ 2 =
12 x 10 =	24 ÷ 3 =
3 x 5 =	10 ÷ 5 =

Lesson 2

Key Learning: complete multiplication and division fact families

Success criteria:

- I can complete multiplication and division fact families
- I can solve multiplication and division equations
- I can use inverse to check my answer

Deepening - introduction to worded equations

division multiplication equation inverse fact families

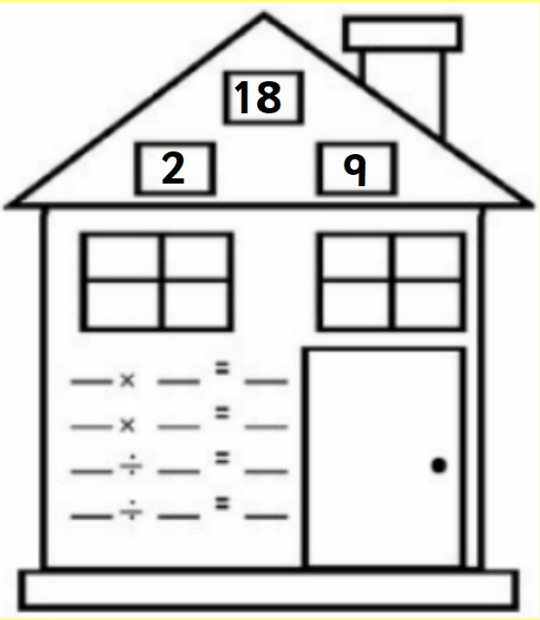
Introduce

A fact family is a group of maths facts using the same numbers.
You can use the same three numbers, and generate four equations.

Let's do one together:

Division - whole is at the start (W ÷ P = P)
Multiplication - whole at the end. (P x P = W)

$2 \times 9 = 18$
$9 \times 2 = 18$
$18 \div 9 = 2$
$18 \div 2 = 9$



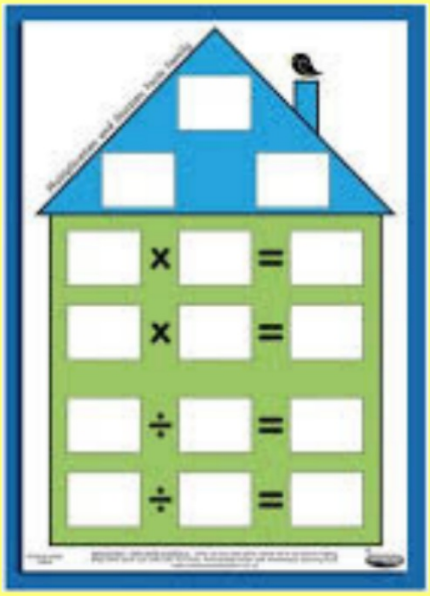
If I know...

then I know...

Make your own fact family house!

Practise and consider

Just like this one:



Choose from these numbers:

6	2	12
10	50	5
35	5	7

Division - whole is at the start (W ÷ P = P)
Multiplication - whole at the end. (P x P = W)

What does it mean to use the **inverse**?

Inverse means to complete the **opposite** equation.

$$2 \times 5 = 10$$

To check my answer I can use the inverse.

$$10 \div 5 = 2$$

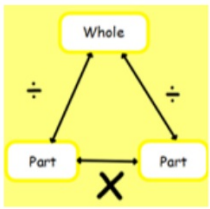
Your turn!

Independent

Copy the equations into your book and solve.

You must show your working out

Top Tip!



Independent

3 X 2 =

10 ÷ 5 =

1 X 10 =

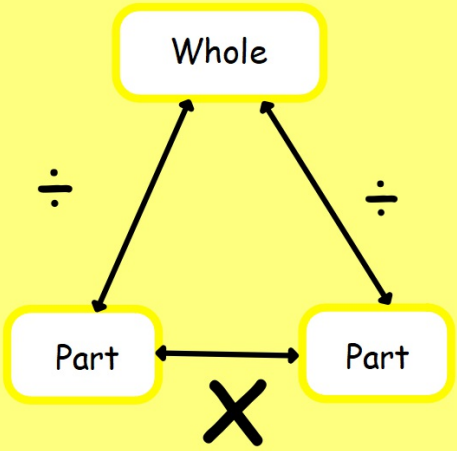
80 ÷ 10 =

5 X 8 =

20 ÷ 2 =

4 X 5 =

4 ÷ 2 =



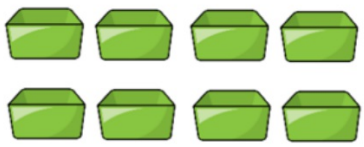
Use the inverse to check your answer!

Deepening

Deepening

Ammar has 8 boxes.

Answer



He puts 5 marbles in each box.

He has 42 marbles left over.

How many marbles did he have at the start?

Use the signs (< > or =) to solve these calculations.

2 X 10 ☐ 5 X 4

60 ÷ 10 ☐ 6 X 10

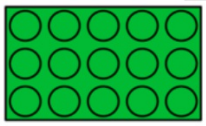
11 X 2 ☐ 25 ÷ 5

Complete the equations to match the array.
Now make up your own array and equations to match.

5 × ☐ = ☐

5 + ☐ + ☐ = ☐

☐ ÷ 5 = ☐



a) Izzy buys 5 apples. How much does she spend? ☐ p

b) Moeed buys 6 pears. How much does he spend? ☐ p

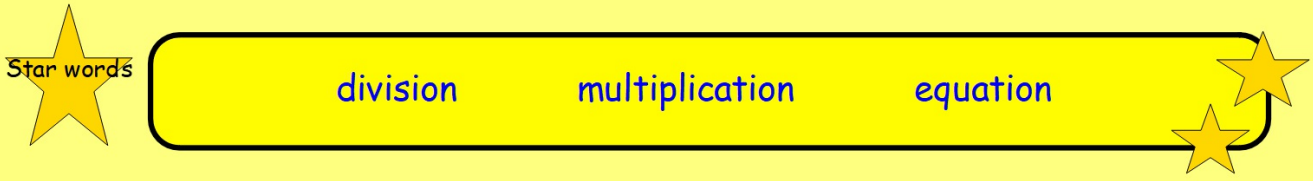
c) Daniel spends 70p on oranges. How many does he buy? ☐ oranges

Lesson 3

Key Learning: to solve multiplication and division word problems

Success criteria:

- I know when to use multiplication and division in word problems
- I can solve multiplication and division word problems



Engage

Engage

Match the array to the multiplication equation and repeated addition

9 X 3

3 + 3 + 3

5 X 2

3 + 3 + 3 + 3 + 3 + 3 + 3 + 3 + 3 + 3

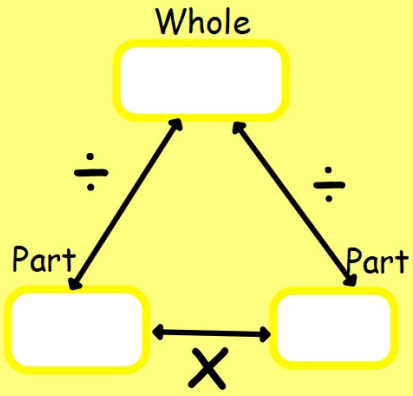
3x3

2 + 2 + 2 + 2 + 2

Introduce

How would you solve this problem?

Mr Wonka has 15 chocolate bars and shares them with 3 children. How many chocolate bars does each child get?



Introduce

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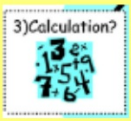
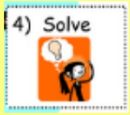
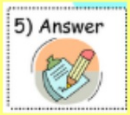
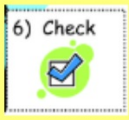
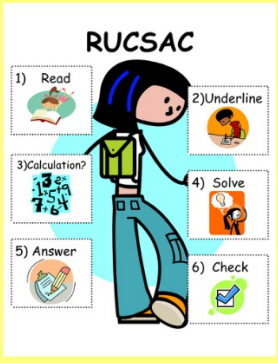


x or ÷ ?





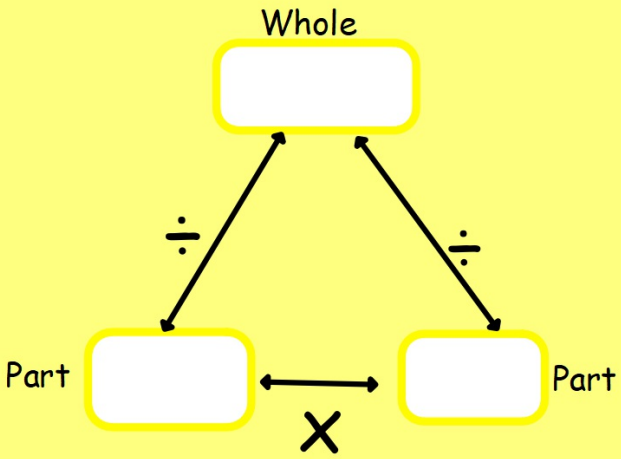




Introduce

How would you solve this problem?

A candy cane tree has 10 candy canes on it. How many would 5 candy cane trees have altogether?



Introduce

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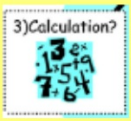
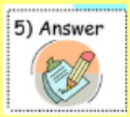
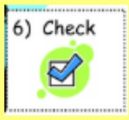
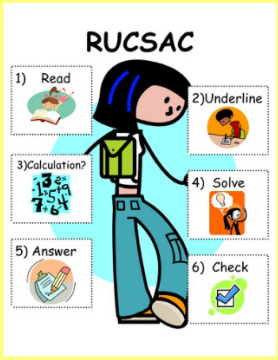


× or ÷ ?







One step problems...

Consider and Practise

Write the equation on the line below.

Consider and Practise

Willy Wonka shares 30 everlasting gobstoppers equally between the 5 children. How many does each child have?

_____

Two step problems...

Independent

Willy Wonka has 10 sticks of candy floss. He makes double , and then shares them equally between 5 parents. How many candy floss sticks does each parent have?

Step 1:

Step 2:

Answer:

Now it's your turn...

Independent

(see Independent sheets)

1. Write out the calculation
2. Look at the symbol to identify if you are dividing (÷) or multiplying (X)
3. Show your working out
4. Find the answer - check using your number facts

(e.g - multiples of 5 end in 0 or 5)

Independent task

You get 6 chocolate bars in a packet and Charlie buys 6 packets. He then shares half of them with Grandpa Joe. How many chocolate bars do they get each?

The Oompa Loompas works in Willy Wonka's factory. They have to box up sweets into boxes of 5. If they have 45 sweets, how many boxes will they need?

Make equal groups - sharing

Write a number sentence to show the answer.

a Kat has 15 sweets that he shares equally between 3 friends.

15 ÷ 3 = _____ for each friend.

b Mo has 12 buttons that he needs to share between 3 shirts.

_____ ÷ _____ = _____ buttons for each shirt.

Lesson 4

Key Learning: to complete multiplication and division investigations

Success criteria:

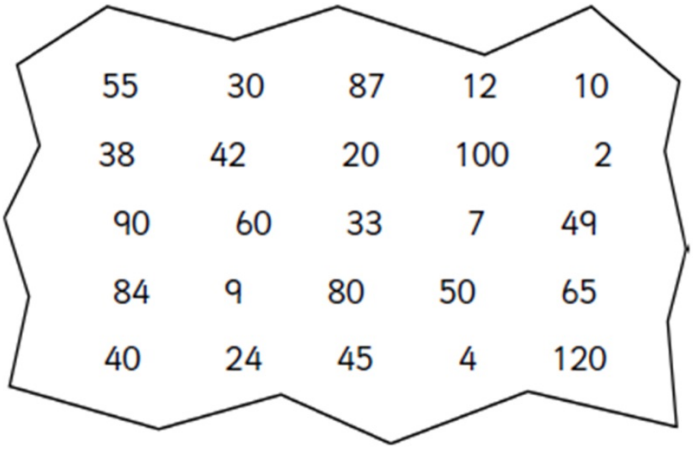
- I can use my multiplication and division skills to complete investigations

Deepening - I can complete further investigations

multiplication division equation

Engage

Circle the numbers that are divisible by 10.



Complete:

a 100 ÷ 10 = _____

b _____ ÷ _____ = 6

c 80 ÷ 10 = _____

d 110 ÷ 10 = _____

e _____ ÷ _____ = 9

f 20 ÷ 10 = _____

g _____ ÷ _____ = 12

h 50 ÷ 10 = _____

i _____ ÷ _____ = 3

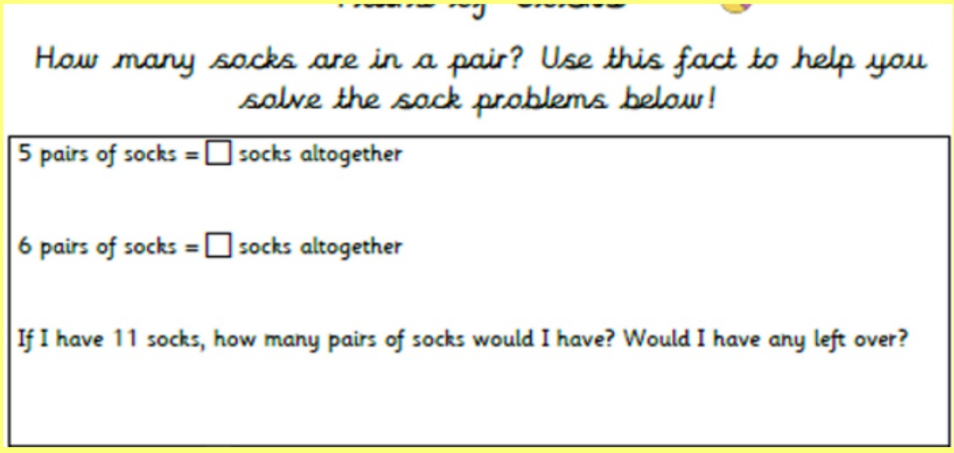
j 10 ÷ 10 = _____

k 70 ÷ 10 = _____

l 40 ÷ 10 = _____

Introduce

Today you are going to complete some multiplication and division investigations.



How many socks are in a pair? Use this fact to help you solve the sock problems below!

5 pairs of socks = ☐ socks altogether

6 pairs of socks = ☐ socks altogether

If I have 11 socks, how many pairs of socks would I have? Would I have any left over?

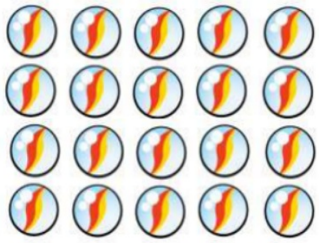
Make sure:

- you read the questions carefully
- use the calculation methods to help you
- check your answer using your multiplication and division facts

Independent

Independent

Dee has 20 marbles and some bags.



She puts 2 marbles in each bag.

(a) How many bags does she use?

Sarah also has 20 marbles and some bags.

Sarah puts 5 marbles in each bag.

(b) How many fewer bags does Sarah use?

Independent

Pairs of Socks

How many socks are in a pair? Use this fact to help you solve the sock problems below!

5 pairs of socks = ☐ socks altogether

6 pairs of socks = ☐ socks altogether

If I have 11 socks, how many pairs of socks would I have? Would I have any left over?

9 pairs of socks = ☐ socks altogether

10 pairs of socks = ☐ socks altogether

If I have 19 socks, how many pairs of socks would I have?

6 pairs of socks = ☐ socks altogether

7 pairs of socks = ☐ socks altogether

If I have 13 socks, how many pairs of socks would I have?

Write the missing numbers.

- 6, 8, ☐, ☐, 14, 16, ☐
- 25, 30, ☐, ☐, ☐, 50
- 80, 70, 60, ☐, ☐, ☐

Deepening

Sam counts in 2s from 0.
What are the 5th, 6th and 7th numbers he says?

Gill counts in 5s from 0.
What are the 6th, 7th and 8th numbers she says?

Deepening

Use the signs
(< > or =) to solve these calculations.
Show your working out to help you.

6 x 10 ☐ 6 +10

21 + 3 ☐ 5 + 5 + 5 + 5 + 5

7 X 5 ☐ 5 X 7