

YEAR 1 MATHS

Term 6 Week 3

Mathletics and Professor Assessor

This week we have set some addition and subtraction and missing number problem activities for children to try on Mathletics: <https://www.mathletics.com/uk/>

We have also set a 2, 5 and 10 times tables test on Professor Assessor: www.prof123.co.uk/

Please also remember to complete the number bonds assessment set last Friday 12th on Professor Assessor.

You will have 1 week to complete each of these tasks. All of these activities will help us to know how you are getting on with your learning.

This week – Number Bonds and Problems

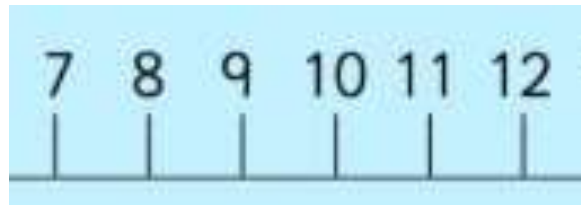
- Each session should take about 45 minutes.
- This week we are focusing on:
- **Lesson 1** – Missing numbers problems.
- **Lesson 2** – Addition and subtraction word problems – choosing the correct operation.
- **Lesson 3** – Addition and subtraction word problems.
- **Lesson 4** – All possible solutions problems.
- **Lesson 5** – All possible solutions problems.

Session 1 – Missing Numbers Problems

- In this session we are going to recap our learning from Friday and continue to think about how to find the missing number in a number sentence.
- Last week you will have seen this example of a missing number problem:

$$7 + \square = 12$$

- We went through how to use a number line to solve this problem.

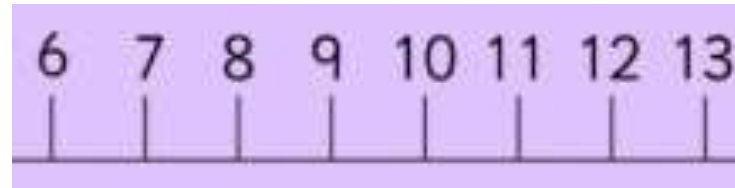


- By counting how many jumps there are between 7 and 12 we can find the amount that has been added to 7 to make 12.

Session 1 – Missing Numbers Problems

- The same can be done for subtraction missing number problems.

$$13 - \square = 6$$



- This week we would like you to try one of the 3 missing number problem sheets on the next few pages. Please work with an adult to select the appropriate level for you.
- Please use a number line to do this. There is a number line on the page to print if needed.

My 0 to 100 Number Line



0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25



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26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50



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51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75



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76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100



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Session 1 – Activity 1

Missing Number Problems

Fill in the missing numbers. Remember you can count on or back on a number line, use your fingers or counters to help.

$8 + \square = 10$

$9 - \square = 6$

$13 + \square = 17$

$20 - \square = 11$

$4 + \square = 7$

$7 - \square = 6$

$12 + \square = 20$

$18 - \square = 14$

$9 + \square = 13$

$13 - \square = 8$

$15 + \square = 19$

$14 - \square = 12$

$10 + \square = 14$

$10 - \square = 6$

$17 + \square = 20$

$12 - \square = 6$

$10 + \square = 20$

$16 - \square = 13$

Session 1 – Activity 2

Missing Number Problems

Fill in the missing numbers. Remember you can count on or back on a number line, use your fingers or counters to help.

$24 + \square = 30$

$19 - \square = 15$

$35 + \square = 42$

$56 - \square = 51$

$33 + \square = 42$

$28 - \square = 21$

$12 + \square = 16$

$35 - \square = 26$

$22 + \square = 25$

$45 - \square = 42$

$51 + \square = 52$

$20 - \square = 14$

$41 + \square = 49$

$31 - \square = 23$

$21 + \square = 26$

$49 - \square = 47$

$36 + \square = 46$

$68 - \square = 58$

Session 1 – Activity 3

Missing Number Problems

Fill in the missing numbers. Remember you can count on or back on a number line, use your fingers or counters to help.

$24 + \square = 37$

$19 - \square = 6$

$35 + \square = 49$

$56 - \square = 46$

$33 + \square = 48$

$28 - \square = 16$

$12 + \square = 23$

$35 - \square = 22$

$22 + \square = 34$

$45 - \square = 28$

$51 + \square = 61$

$20 - \square = 4$

$41 + \square = 57$

$31 - \square = 20$

$21 + \square = 39$

$49 - \square = 7$

$36 + \square = 53$

$68 - \square = 53$

Session 2 – Addition and Subtraction Word Problems

- Today we are going to focus on addition and subtraction word problems.
- The first part of this is to decide whether a problem is addition or subtraction.
- As we have learnt before, there are certain words that can give us a 'clue' as to whether the problem is addition and subtraction. Here are some examples:

Addition Words	Subtraction Words
add	take away
plus	minus
more	less
How many altogether?	How many left?

- Next we would like you to try this game. You will need to decide whether the problem is addition or subtraction. Further instructions for this game can be found on the next page. <https://www.topmarks.co.uk/Flash.aspx?f=postsortingwordproblem>

Session 2 – Addition and Subtraction Word Problems



Please click on addition and subtraction problems.

Addition

+

Subtraction

-

Tom rolls 3 dice. He gets a 3, a 6 and a 51

What is his total score?

next

Read carefully to find the 'clue' word that shows us whether it is an addition or subtraction problem.

Session 2 – Addition and Subtraction Word Problems

- Next we would like you to try finding the answers to one of the three sets of problems on the next few pages. Please work with an adult to choose the appropriate level for you and please do feel free to extend onto higher challenges once you are feeling more confident.
- For each problem please underline or circle the 'clue' word and then write out the number sentence. (This has been shown below.)
- We would like you to think carefully about the method you choose to use to solve the problems. You could use your number line or draw a blank number line. Alternatively, you could use more practical resources like counters or cubes, or any other objects you have at home.

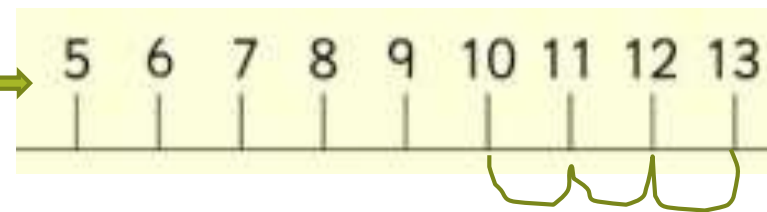
There are 13  .

3  fly away.

How many are left?


Write out the number sentence. \longrightarrow $13 - 3 = 10$

A number line has been used to find the answer. \longrightarrow





\longleftarrow This shows that it is a subtraction problem.



Session 2 – Activity 1

a Ellie eats 3 .
Then she eats 4 more.
How many  does
she eat altogether?

$$\square \quad \square \quad \square = \square$$

b Thomas had 8 .
5 sailed away.
How many  did he
have left?

$$\square \quad \square \quad \square = \square$$

c There are 20 .
6 roll away.
How many  are left?

$$\square \quad \square \quad \square = \square$$

d Bronte has 3 .
Lucy has 9 .
How many teddies do
they have altogether?

$$\square \quad \square \quad \square = \square$$

Session 2 – Activity 2

I had 25 pencils. I gave
5 away. How many have I
got left now?

I had 32 sweets. Daddy
gave me 9 more. How
many sweets have I got
now?

I had 27 books. Mummy
took away 11. How many
books have I got left
now?

I had 39 ducks. Daddy
gave me 10 more. How
many ducks have I got
now?

We bought 29 cakes. I
ate 7, then my sister ate
3. How many cakes have
I got left?

I counted 41 birds.
Daddy saw 12. Mummy
saw 2 more. How many
birds did we see
altogether?

Session 2 – Activity 3

You will need to complete these problems in order as they link together into a short maths story.

1. Mrs Gibson has 26 children in her Year 2 class. 15 are girls.
How many are boys?
2. In Mrs Gibson's class, 19 of the children have a pet. How many children do not have a pet?
3. Yesterday the children in Year 2 went on a trip with Year 1. There are 24 children in Year 1, how many children went altogether?
4. Mrs Gibson buys 10 blue pencils, 15 green pencils and 8 red pencils. How many pencils are there altogether?
5. If each child in Year 2 is given a new pencil. How many pencils will be left over?

Answers to this can be found on the next page.

Session 2 – Activity 3

1. Mrs Gibson has 26 children in her Year 2 class. 15 are girls.
How many are boys? $26-15=11$
2. In Mrs Gibson's class, 19 of the children have a pet. How many children do not have a pet? $26-19=7$
3. Yesterday the children in Year 2 went on a trip with Year 1.
There are 24 children in Year 1, how many children went altogether? $24+26=50$
4. Mrs Gibson buys 10 blue pencils, 15 green pencils and 8 red pencils. How many pencils are there altogether? $10+15+8=33$
5. If each child in Year 2 is given a new pencil. How many pencils will be left over?
 $33-26=7$

Session 3 – Addition and Subtraction Word Problems

- Today we are going to continue learning about solving addition and subtraction word problems.
- To start with we would like to recap using a blank number line. We would like you to try using this method today, however you can use a normal number line if you find this too challenging.
- This is the problem we are going to work through first:

May has 19 toy cars and her sister takes 12 of them. How many cars has May got left?



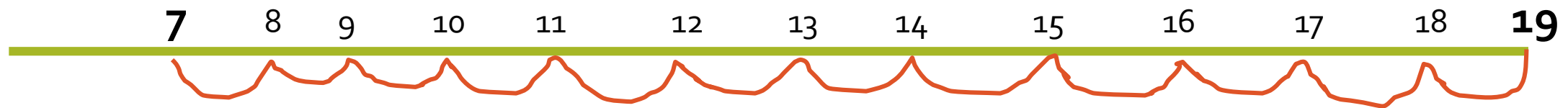
- Can you find the 'clue' word? Which operation do we need to use, addition or subtraction?

Session 3 – Addition and Subtraction Word Problems

May has 19 toy cars and her sister takes 12 of them. How many cars has May got left?



- The word 'left' tells us that this is a subtraction question.
- We can see that the number sentence will be: $19 - 12 = ?$
- Below we have a blank number line. 19 has been written at one end and 12 jumps have been made backwards. You can see we have landed on the answer 7.



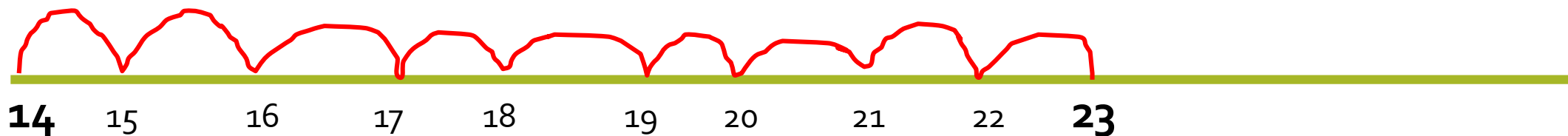
The jumps are going backwards and underneath the line to show that this is a subtraction.

Session 3 – Addition and Subtraction Word Problems

Ben and Sam have 14 pencils each. Bob had only got 9 pencils. How many pencils do the boys have altogether?



- The word 'altogether' tells us that this is an addition question.
- We can see that the number sentence will be: $14 + 9 = ?$
- Below we have a blank number line. 14 has been written at one end and 9 jumps have been made forwards. You can see we have landed on the answer 23.



This time the jumps are above the line and going forwards to show that we are adding.

Session 3 – Addition and Subtraction Word Problems

Extra
challenge
method!

Stripe likes to eat 24 nuts at lunchtime and 59 nuts at dinnertime. How many nuts does Stripe eat a day?



- In this problem there are 2 larger 2-digit numbers 59 and 24. We will put 59 first in our number sentence as it is the greatest number: $59 + 24 = ?$
- We would have to draw a lot of jumps on a blank number line if we count in ones all the way up to 24. To make this process quicker we can add on the tens and then the ones.
- First we need to partition 24 into tens and ones:

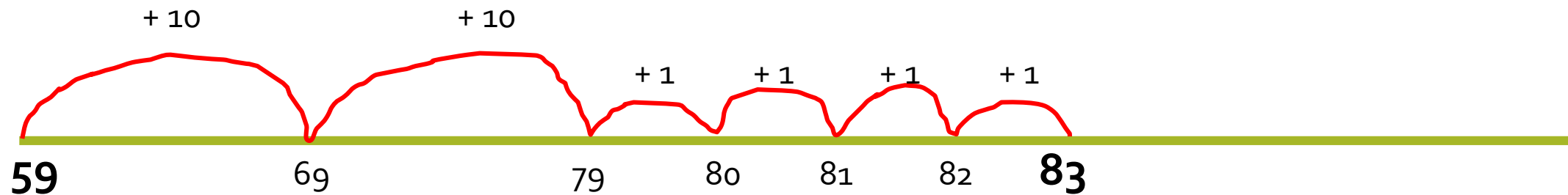
tens	ones
2	4

Session 3 – Addition and Subtraction Word Problems

Stripe likes to eat 24 nuts at lunchtime and 59 nuts at dinnertime. How many nuts does Stripe eat a day?



- Next on the blank number line we start by making the 2 jumps of 10 and then do 4 smaller jumps of 1:



Session 3 – Activity 1

Miss Foster has 4 cups. She finds 2 more. How many cups does she have all together?



Kyle has 10 sweets. He eats 5 sweets. How many are left?



Joy has 3 books. Evelyn gives her 3 more. How many books does Joy have now?



A hen lays 4 eggs. She lays 6 more. How many eggs are there?



Session 3 – Activity 2

May has 25 toy cars and her sister takes 9 of them. How many cars has May got left?



Ben and Sam have 6 pencils each. Bob had only got 4 pencils. How many pencils do the boys have altogether?



There are 20 children in a class. 7 children are off school sick, how many children are left in the class?



In a rock pool there are 5 starfish, 7 shellfish and 4 crabs. How many sea creatures are there in total?



A banana costs 18p. How much money do I need to buy two bananas?



Stripe likes to eat 15 nuts at lunchtime and 13 nuts at dinnertime. How many nuts does Stripe eat a day?



Session 3 – Activity 3



Tristan had a 50p in his pocket and a 22p in his piggy bank how much did he have altogether?

There are 40 books in the gold box and 12 are borrowed by children. How many books are left?



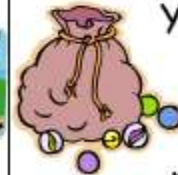
50 yellow pencils and 23 red pencils, how many altogether?



In the hall there are 50 children. 25 children are having packed lunch. How many children are left for school dinners?



60 children are in the green zone and 36 children are in the yellow zone. How many children altogether?



Yasmin has 45 blue marbles and Olivia borrowed 25. How many marbles does she have left?

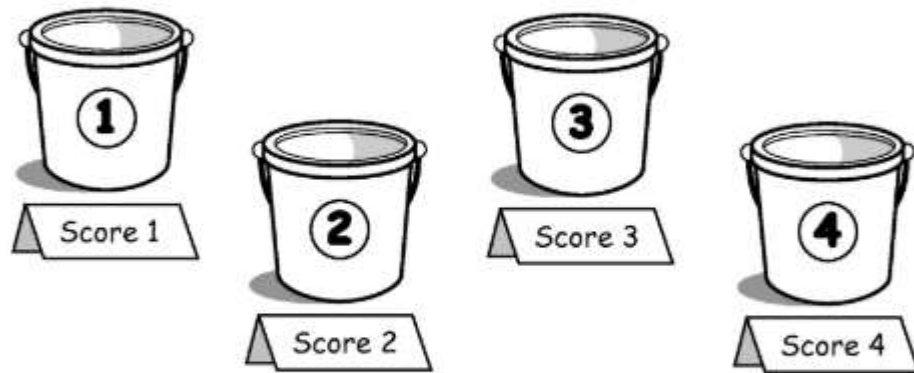
Session 4 – All Possibilities Problems.

- Today we are going to try solving an 'all possibilities' problem.
- When we have worked on these previously the focus has been on working through the question logically to ensure we find all the answers.
- Once you have read through the problem. Try to talk through your ideas for how to solve it with an adult.

Session 4 – All Possibilities Problems.

Bean-bag buckets

Dan threw 3 bean-bags.
Each bag went in a bucket.
More than one bag can go in a bucket.



1. What is the highest score Dan can get?
2. Find three ways to score 6.
3. Find three ways to score 9.
4. What other scores can Dan get?

- For this problem we know that we can add together 3 numbers each time.
- We also know that we can use a number more than once.
- However we can only add the numbers 1, 2, 3 or 4.
- Think carefully about the numbers you have available when trying to answer each of the questions.
- **The solutions can be found on the next page.**

Session 4 – All Possibilities Problems.

5 Bean-bag buckets

1. The highest score is 12 (3 bags in 4).
2. Score 6 in three ways:
1 bag in 4 and 2 bags in 1, or
1 bag in 1, 1 bag in 2 and 1 bag in 3, or
3 bags in 2.
3. Score 9 in three ways:
1 bag in 1 and 2 bags in 4, or
1 bag in 2, 1 bag in 3, 1 bag in 4, or
3 bags in 3.
4. Besides 6, 9 and 12, other possible scores are:
 - 3: 3 bags in 1
 - 4: 2 bags in 1, 1 bag in 2
 - 5: 2 bags in 1, 1 bag in 3, or
1 bag in 1, 2 bags in 2
 - 7: 1 bag in 1, 2 bags in 3, or
2 bags in 2, 1 bag in 3, or
1 bag in 1, 1 bag in 2, 1 bag in 4
 - 8: 2 bags in 2, 1 bag in 4, or
1 bag in 2, 2 bags in 3, or
1 bag in 1, 1 bag in 3, 1 bag in 4
 - 10: 1 bag in 2, 2 bags in 4

- If your child would like an extra challenge then you could make the numbers larger.
 - For example, the scores for each bucket could be: 9, 10, 11 and 12.
1. What is the largest score you can make with 3 beanbags?
 2. What is the smallest score you can make?
 3. What other possible scores can be made?

Session 5 – All Possibilities Problems.

- Today we would like you to start by completing the Addition and Subtraction Problems Assessment on Professor Assessor:
www.prof123.co.uk/
- This has been set from Friday 19th June and you will have 1 week to complete the test. This will help us to know how you are getting on with your learning.
- After this, we would like you to try another all possibilities problem.

Session 5 – All Possibilities Problems.

Spaceship



Some Tripods and Bipods flew from planet Zeno.
There were at least two of each of them.

Tripods have 3 legs.
Bipods have 2 legs.
There were 23 legs altogether.

How many Tripods were there?
How many Bipods?

Find two different answers.



- Today you will only be working with the numbers 2 and 3.
- The answer you need to make is 23.
- Can you draw a picture of Bipods and Tripods to help you solve the problem?
- Can you use a number line to check your answer?
- Please look on the next page for one of Mrs Janman's solutions.

Session 5 – All Possibilities Problems.

- Mrs Janman's solution:
- I started by drawing 2 bipods and 2 tripods as there had to be at least 2 of each. I then added up how many legs this made. 10!
- I then decided to repeat this amount to make 20 legs.
- I then only needed one more Tripod to make a total of 23 legs.
- Can you find any more solutions?

