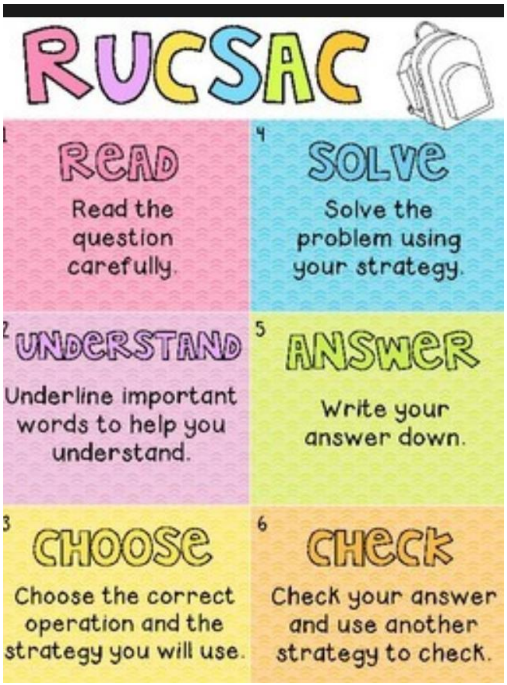
Complete all work in the books provided.

Challenge 1: Subtraction word problems



Use RUCSAC to help you solve word problems.

Read

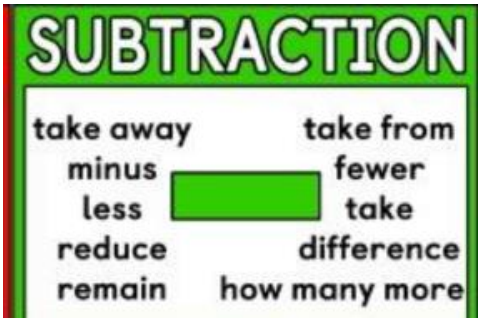
Understand

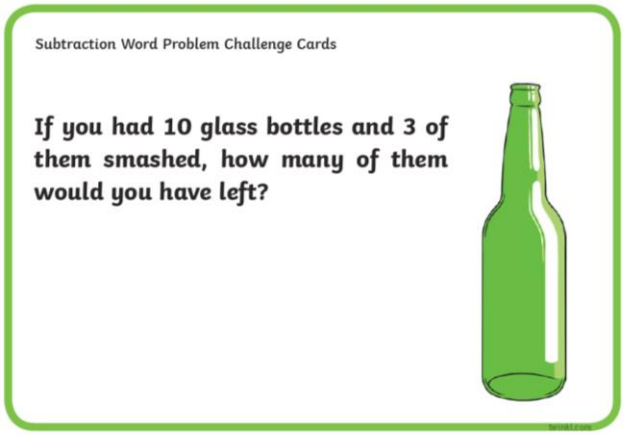
Choose

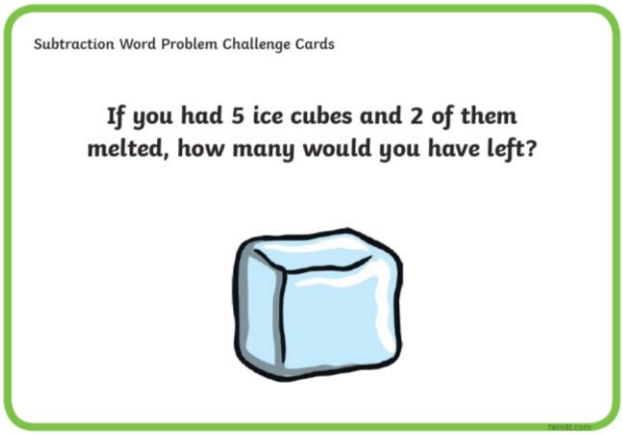
Solve

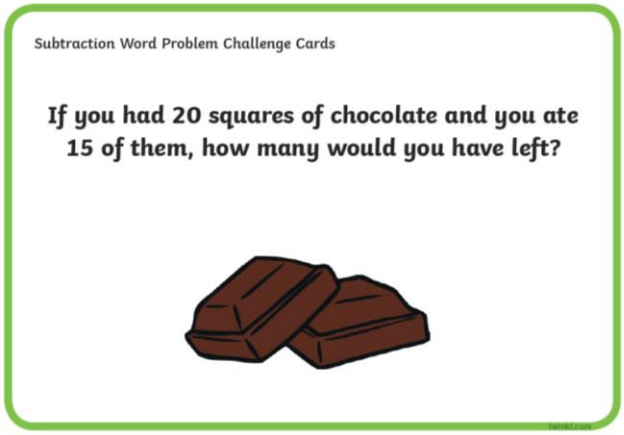
Answer

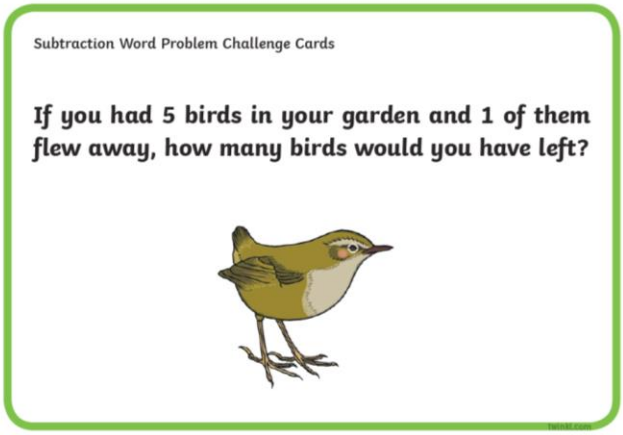
Check











Subtraction Word Problem Challenge Cards

If you had 10 currant buns and 8 of them have been eaten, how many of them would you have left?

Subtraction Word Problem Challenge Cards

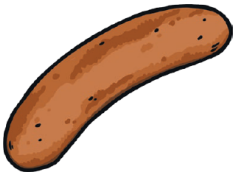
If you had 5 books and you have read 3 of them, how many would you have left?

Subtraction Word Problem Challenge Cards

If you had 20 jelly beans and you have eaten 6 of them, how many would you have left?

Subtraction Word Problem Challenge Cards

If you had 10 sausages in a pack and you have cooked 4 of them, how many sausages would you have left in the packet?



Subtraction Word Problem Challenge Cards

If you had 10 marbles and 2 of them have rolled away, how many of them would you have left?

Subtraction Word Problem Challenge Cards

If you had 20 plums and you use 13 to make jam, how many would you have left?

Challenge 2. Subtraction continued –crossing 10

R	Read	Read the question carefully.
U	Underline	Underline the keywords and numbers.
C	Calculations	Choose the correct operation(s) and mental or written method of calculation.
S	Solve	Solve it! Make sure you follow the steps.
A	Answer	Check you have answered the question. What did I have to find out?
C	Check	Check your answer. Can I use the inverse to check my working?

When solving word problems remember to use RUCSAC to help you.

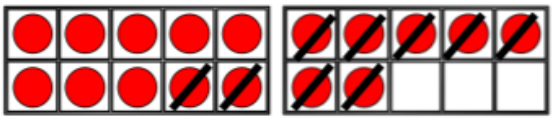
Questions for discussions

How do the counters and bar models help you to subtract?

Which method would you use to show your thinking and why?

Did you count forwards or backwards? Why?

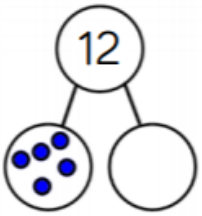
Complete the number sentences to describe what happens to the sweets.



First there were ___ sweets.
Then ___ sweets were eaten.
Now there are ___ sweets.

□ – □ = □

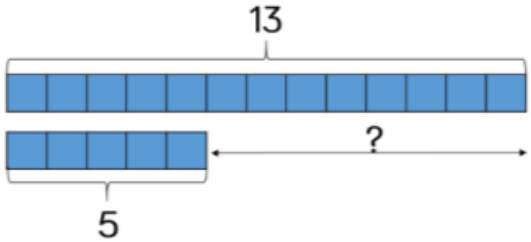
There are 12 cars in the car park.
5 of them are blue.
How many are red?



□ – □ = □

___ of the cars are red.

Adam has 13 playing cards.
Oliver has 5 playing cards.
How many more cards does Adam have?



□ – □ = □

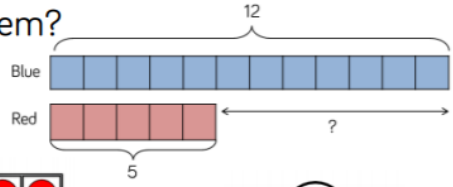
3. Subtraction continued –crossing 10: Reasoning and problem solving

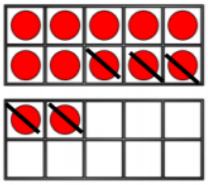
A Max has 12 balloons.
5 of the balloons burst.
How many are left?

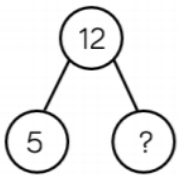
B Max has 12 balloons.
5 of the balloons are red.
There rest are blue.
How many blue balloons does Max have?

C Max has 12 blue balloons and 5 red balloons.
How many more blue balloons than red balloons does he have?

Which method would you use to solve each problem?







Amir has 16 apples. Ron has none.
Amir gives Ron 9 apples.
Who has the most apples now?
Explain how you know.

Look at the following objects.

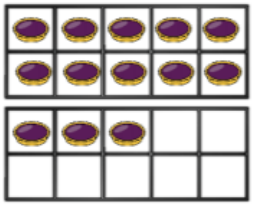
Teddy works out these calculations.

15 – 4 = ___
15 – 11 = ___
11 – 4 = ___

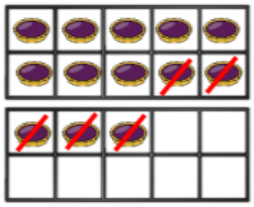
What question could he have asked each time?

Challenge 3. Subtraction –crossing 10

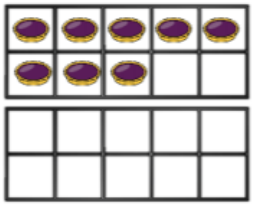
First there were 13 jam tarts

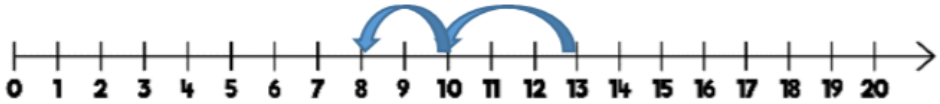


Then 5 were eaten

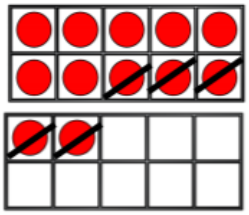


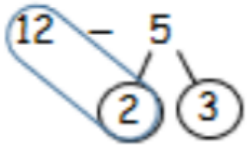
Now there are 8 jam tarts.





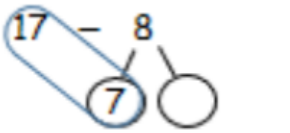
Rosie has used the ten frames to calculate 12 – 5



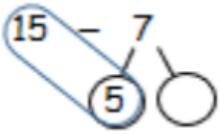


10 – 3 = 7

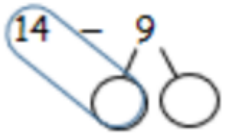
Use her method to complete:



10 – ☐ = ☐



☐ – ☐ = ☐



☐ – ☐ = ☐

Questions for discussions

How can you partition a number to help you subtract?

How does using the counters help you to see this strategy?

How does using a number line help you to see this strategy?

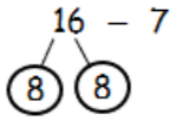
Can you think of another way to represent this problem?

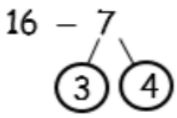
2. Subtraction –crossing 10: Reasoning and problem solving

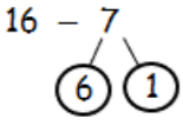
1.

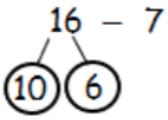
Rosie is calculating 16 – 7

Which of these methods is most helpful?
Why?









Could you find a way to partition 16 to help you subtract 7?

2.

Teddy works out 15 – 6
This is Teddy's working out:

15 – 5 = 10 – 1 = 9

Why is Teddy's working out wrong?

Answers:

Challenge 1:

Subtraction Word Problem Challenge Cards

If you had 10 glass bottles and 3 of them smashed, how many of them would you have left?

Subtraction Word Problem Challenge Cards

If you had 5 ice cubes and 2 of them melted, how many would you have left?

Subtraction Word Problem Challenge Cards

If you had 20 squares of chocolate and you ate 15 of them, how many would you have left?

Subtraction Word Problem Challenge Cards

If you had 5 birds in your garden and 1 of them flew away, how many birds would you have left?

Subtraction Word Problem Challenge Cards

If you had 10 currant buns and 8 of them have been eaten, how many of them would you have left?

Subtraction Word Problem Challenge Cards

If you had 5 books and you have read 3 of them, how many would you have left?

Subtraction Word Problem Challenge Cards

If you had 20 jelly beans and you have eaten 6 of them, how many would you have left?

Subtraction Word Problem Challenge Cards

If you had 10 sausages in a pack and you have cooked 4 of them, how many sausages would you have left in the packet?

Subtraction Word Problem Challenge Cards

If you had 10 marbles and 2 of them have rolled away, how many of them would you have left?

Subtraction Word Problem Challenge Cards

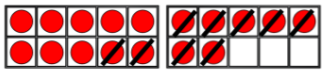
If you had 20 plums and you use 13 to make jam, how many would you have left?

1. 10 – 3 = 7
2. 5 – 2 = 3
3. 20 – 15 = 5
4. 5 – 1 = 4
5. 10 – 8 = 2
6. 5- 3 = 2
7. 20 – 6 = 14
8. 10 – 4 = 6
9. 10 – 2 = 8
10. 20 – 13 = 7

Answers

Challenge 2:

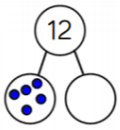
Complete the number sentences to describe what happens to the sweets.



First there were ___ sweets.
Then ___ sweets were eaten.
Now there are ___ sweets.

□ − □ = □

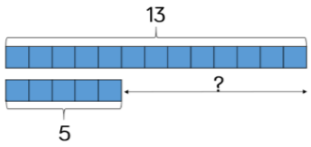
There are 12 cars in the car park.
5 of them are blue.
How many are red?



□ − □ = □

___ of the cars are red.

Adam has 13 playing cards.
Oliver has 5 playing cards.
How many more cards does Adam have?



□ − □ = □

27

1. First there were 17 sweets.

Then 9 sweets were eaten.

Now there are 8 sweets.

17 - 9 = 8

2. 12 - 5 = 7

7 cars are red.

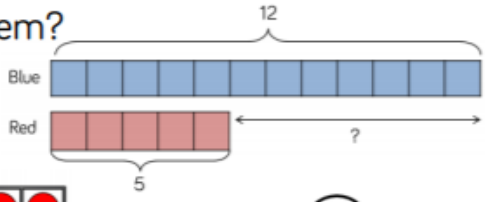
3. 13 - 5 = 8

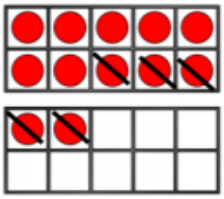
A Max has 12 balloons.
5 of the balloons burst.
How many are left?

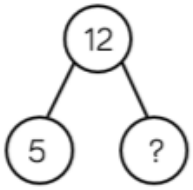
B Max has 12 balloons.
5 of the balloons are red.
There rest are blue.
How many blue balloons does Max have?

C Max has 12 blue balloons and 5 red balloons.
How many more blue balloons than red balloons does he have?

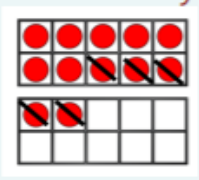
Which method would you use to solve each problem?



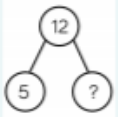




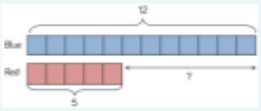
Ask the children to justify which method they would use and why.
Possible answers:
A Take away



B Partitioning



C Difference

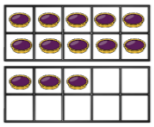


Amir has 16 apples. Ron has none. Amir gives Ron 9 apples. Who has the most apples now? Explain how you know.	Ron because he has 9 and Amir only has 7 left. 16 – 9 = 7
Look at the following objects.  Teddy works out these calculations. 15 – 4 = ___ 15 – 11 = ___ 11 – 4 = ___ What question could he have asked each time?	15 – 4 = 11 (Teddy has 15 bears. He eats 4. How many are left?) 15 – 11 = 4 (11 are yellow how many are purple?) 11 – 4 = 7 (How many more yellow bears are there?)

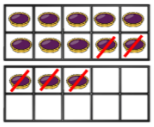
Answers

Challenge 3

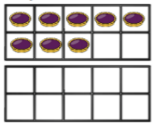
First there were 13 jam tarts

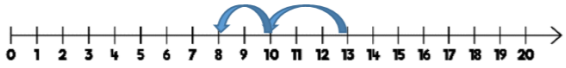


Then 5 were eaten

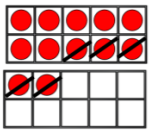


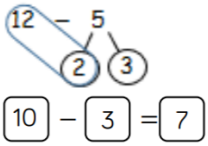
Now there are 8 jam tarts.



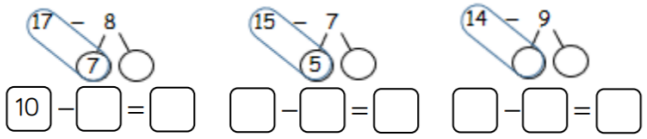


Rosie has used the ten frames to calculate 12 – 5





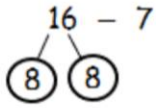
Use her method to complete:

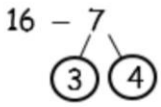


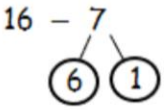
1. 10 - 9 = 1
2. 10 - 8 = 2
3. 10 - 5 = 5

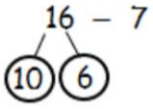
Rosie is calculating 16 – 7

Which of these methods is most helpful? Why?









Could you find a way to partition 16 to help you subtract 7?

Partitioning the 7 into 6 and 1 is useful as Rosie can subtract the 6 to make 10 then subtract the 1

If you partition 16 into 7 and 9, you can subtract 7

Teddy works out 15 – 6
This is Teddy's working out:

15 – 5 = 10 – 1 = 9

Why is Teddy's working out wrong?

Teddy has used the = sign incorrectly.
10 – 1 is not equal to 15 – 5
He should have written:
15 – 5 = 10
10 – 1 = 9