

Information for Parents

The bar model shown below is a really good way of helping children to understand the relative sizes of numbers and to link three numbers together in different ways, showing that addition and subtraction are closely related. The idea is that the 'total' number goes in the top bar, with two numbers that make that number in correctly sized bars underneath. Some schools refer to this as the 'part-part-whole' model, where children learn that the two sides of an addition calculation are the 'parts' and the answer is the 'whole', whereas in a subtraction, the first number is the 'whole' and the other two numbers are the 'parts'. By understanding this model, children can see the relationship between addition and subtraction and use this understanding to solve problems.

Problem Solving with Bar Models

Use bar models to solve these word problems.

There are seven books in my bag and 3 in my friend's bag. How many books have we got altogether?	
7	3

My team scored 5 goals last week and 7 goals today. How many goals did we score in total?	
5	7

There were 10 biscuits in the tin. Now there are 5. How many have been eaten?	
10	
5	

I had 16 beads. I used some of them to make a bracelet and now I have 10 left. How many beads are on my bracelet?	
16	
10	

Joe goes to rugby training 3 days a week. How many days does he have off?	
7	
3	

Sam took 5 minutes to finish his book. It took Jacob 7 minutes. How many minutes is that altogether?	
5	7

In 3 years, Mia will be 11. How old is Mia now?	
11	
3	

My dog weighs 5kg. My friend's dog weighs 12kg. How much heavier is my friend's dog than mine?	
12	
5	

Problem Solving with Bar Models

Use bar models to solve these word problems.

There are 20 sweets in my bag and 13 sweets in my friend's bag. How many sweets have we got altogether?	
20	13

In three rolls of the dice, Jack scored 18. James scored 9. How many more did Jack score than James?	
18	
9	

There were 30 biscuits in the tin. Now there are 25. How many have been eaten?	
30	
25	

I had 46 beads. I used some of them to make a bracelet and now I have 20 left. How many beads are on my bracelet?	
20	

4 months of the year have 30 days. How many months do not have 30 days?	
4	

Sam took 25 minutes to do his homework. It took Jacob 22 minutes. How long did they take altogether?	
25	

Billy gave 25 of his football cards to Ali. Now he has 34 left. How many did he start with?	
	34

My dog weighs 5kg. My friend's dog weighs 12kg. How much heavier is my friend's dog?	
5	

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Sam took 25 minutes to do his homework. It took Jacob 22 minutes. How long did they take altogether?

Billy gave 25 of his football cards to Ali. Now he has 34 left. How many did he start with?

My dog weighs 5kg. My friend's dog weighs 12kg. How much heavier is my friend's dog?

Problem Solving with Bar Models Answers

There are seven books in my bag and 3 in my friend's bag. How many books have we got altogether?

10 books

10

7

3

My team scored 5 goals last week and 7 goals today. How many goals did we score in total?

12 goals

12

5

7

There were 10 biscuits in the tin. Now there are 5. How many have been eaten?

5 biscuits

10

5

5

I had 16 beads. I used some of them to make a bracelet and now I have 10 left. How many beads are on my bracelet?

6 beads

16

10

6

Joe goes to rugby training 3 days a week. How many days does he have off?

4 days

7

3

4

Sam took 5 minutes to finish his book. It took Jacob 7 minutes. How many minutes is that altogether?

12 minutes

12

5

7

In 3 years, Mia will be 11. How old is Mia now?

8 years old

11

3

8

My dog weighs 5kg. My friend's dog weighs 12kg. How much heavier is my friend's dog than mine?

7kg

12

5

7

Problem Solving with Bar Models Answers

There are 20 sweets in my bag and 13 sweets in my friend's bag. How many sweets have we got altogether?

33 sweets

33

20

13

In three rolls of the dice, Jack scored 18. James scored 9. How many more did Jack score than James?

9 more

18

9

9

There were 30 biscuits in the tin. Now there are 25. How many have been eaten?

5 biscuits

30

25

5

I had 46 beads. I used some of them to make a bracelet and now I have 20 left. How many beads are on my bracelet?

26 beads

46

20

26

4 months of the year have 30 days. How many months do not have 30 days?

8 months

12

4

8

Sam took 25 minutes to do his homework. It took Jacob 22 minutes. How long did they take altogether?

47 minutes

47

25

22

Billy gave 25 of his football cards to Ali. Now he has 34 left. How many did he start with?

59 cards

59

25

34

My dog weighs 5kg. My friend's dog weighs 12kg. How much heavier is my friend's dog?

7kg

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5

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Problem Solving with Bar Models Answers

There are 20 sweets in my bag and 13 sweets in my friend's bag. How many sweets have we got altogether?

33 sweets

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In three rolls of the dice, Jack scored 18. James scored 9. How many more did Jack score than James?

9 more

18

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There were 30 biscuits in the tin. Now there are 25. How many have been eaten?

5 biscuits

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I had 46 beads. I used some of them to make a bracelet and now I have 20 left. How many beads are on my bracelet?

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