

Addition and Subtraction Bar Model Word Problems

Complete the bar models to solve the word problems. Underneath each bar model, write out the calculation using addition or subtraction. Check your answers using the inverse.

- 1) On Sunday, I went to team training for 144 minutes and penalty practice for 45 minutes. On Thursday, I went to football training for 111 minutes. What is the difference between the time I spent training on Sunday and on Thursday?

Sunday = _____ minutes	
team training 144 minutes	penalty practice 45 minutes

Calculation: _____

Check with the inverse: _____

Sunday = _____ minutes	
Thursday = 111 minutes	Difference = _____ minutes

Calculation: _____

The difference between the time I spent training on Sunday and Thursday is _____ minutes.

Check with inverse: _____

- 2) A football costs £2. I bought four footballs and I paid with a £10 note. How much change did I receive?

£10				
£2	£2	£2	£2	change = _____

Calculations: _____

I received _____ in change.

Check with the inverses: _____

- 3) The football club bought 50 yellow balls and 125 orange balls. They lost 13 balls over the fence. How many balls do they have left?

total balls = _____	
50 yellow balls	125 orange balls

Calculation: _____

Check with the inverse: _____

total balls = _____	
13 balls lost	balls left = _____

Calculation: _____

The football club have _____ balls left.

Check with the inverse: _____

- 4) There are 137 matches to play this season. The football team have lost 36 matches and won 80. How many matches do they still have left to play?

137 matches		
36 lost	80 won	_____ left to play

Calculations: _____

The team still have _____ matches left to play.

Check with the inverses: _____



Addition and Subtraction Bar Model Word Problems Answers

Question	Answer										
1.	<table border="1"> <tr> <td colspan="2">Sunday = 189 minutes</td> <td colspan="2">Sunday = 189 minutes</td> </tr> <tr> <td>team training 144 minutes</td> <td>penalty practice 45 minutes</td> <td>Thursday = 111 minutes</td> <td>difference = 78 minutes</td> </tr> </table> <p>Calculations: 144 + 45 = 189</p> <p>189 - 111 = 78</p> <p>The difference between the time I spent training on Sunday and Thursday is 78 minutes.</p> <p>Check with the inverses: 189 - 144 = 45 78 + 111 = 189</p> <p>189 - 45 = 144 111 + 78 = 189</p>	Sunday = 189 minutes		Sunday = 189 minutes		team training 144 minutes	penalty practice 45 minutes	Thursday = 111 minutes	difference = 78 minutes		
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2.	<table border="1"> <tr> <td colspan="5">£10</td> </tr> <tr> <td>£2</td> <td>£2</td> <td>£2</td> <td>£2</td> <td>change = £2</td> </tr> </table> <p>Calculations: £2 + £2 + £2 + £2 = £8</p> <p>£10 - £8 = £2</p> <p>I received £2 in change.</p> <p>Check with the inverses: £8 - £2 - £2 - £2 = £2</p> <p>£2 + £8 = £10 or £8 + £2 = £10</p>	£10					£2	£2	£2	£2	change = £2
£10											
£2	£2	£2	£2	change = £2							

3.

total balls = 175	
50 yellow balls	125 orange balls

Total balls = 175	
13 balls lost	Balls left = 162

Calculations: $50 + 125 = 175$ $175 - 13 = 162$

There are **162** balls left in total.

Check with the inverses: $175 - 50 = 125$ $162 + 13 = 175$

$175 - 125 = 50$ $13 + 162 = 175$

4.

137 matches		
36 lost	80 won	21 left to play

Calculations: $36 + 80 = 116$ $137 - 116 = 21$

They still have **21** games left to play.

Check with the inverses: $116 - 80 = 36$ $116 + 21 = 137$

$116 - 36 = 80$ $21 + 116 = 137$

Addition and Subtraction Bar Model Word Problems

Complete the bar models to solve the word problems. Underneath each bar model, write out the calculation using addition or subtraction. Check your answers using the inverse.

- 1) Mum drives the football team minibus to the matches. Last month, she drove 86 miles to one match and 167 miles to the other. This month, she drove 182 miles altogether. What is the difference between the miles she drove this month and last month?

last month = _____ miles	

Calculations: _____

The difference between last month's and this month's miles is _____ miles.

Check with the inverses: _____

- 2) Football kits for the team cost £23 each. The team raised £50 at a charity match. How much more money do they need to raise to afford 3 new kits?

Calculation: _____

They need to raise _____ more to afford 3 new kits.

Check with the inverses: _____

- 3) The team trained for 250 minutes on Saturday and 260 minutes on Sunday. How many more minutes do they need to do to hit their target of 1000 minutes' training?

Calculation: _____

Answer: _____

Check with the inverses: _____

- 4) There are 376 matches to play over three seasons. The football team have drawn 98 matches, lost 30 and won 86. How many games do they still have left to play?

Calculation: _____

Answer: _____

Check with the inverses: _____



Addition and Subtraction Bar Model Word Problems **Answers**

Question	Answer												
1.													
	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="2" style="text-align: center;">last month = 253 miles</td> </tr> <tr> <td style="text-align: center;">86 miles to one match</td> <td style="text-align: center;">167 miles to another match</td> </tr> <tr> <td colspan="2" style="text-align: center;">253 miles last month</td> </tr> <tr> <td style="text-align: center;">182 miles this month</td> <td style="text-align: center;">71 miles difference</td> </tr> </table> <p>Answer: The difference between last month's and this month's miles is 71 miles. Check with the inverses: $253 - 167 = 86$ $71 + 182 = 253$ $253 - 86 = 167$ $182 + 71 = 253$</p>	last month = 253 miles		86 miles to one match	167 miles to another match	253 miles last month		182 miles this month	71 miles difference				
last month = 253 miles													
86 miles to one match	167 miles to another match												
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2.													
	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="3" style="text-align: center;">£69 cost</td> </tr> <tr> <td style="text-align: center;">£23 kit</td> <td style="text-align: center;">£23 kit</td> <td style="text-align: center;">£23 kit</td> </tr> <tr> <td colspan="3" style="text-align: center;">£69 cost</td> </tr> <tr> <td style="text-align: center;">£50 raised</td> <td colspan="2" style="text-align: center;">£19 more to raise</td> </tr> </table> <p>Calculations: $£23 + £23 + £23 = £69$ $£69 - £50 = £19$ Answer: They need to raise £19 more to afford the new kits. Check with the inverses: $£69 - £23 - £23 = £23$ $£19 + £50 = £69$ $£50 + £19 = £69$</p>	£69 cost			£23 kit	£23 kit	£23 kit	£69 cost			£50 raised	£19 more to raise	
£69 cost													
£23 kit	£23 kit	£23 kit											
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3.													
	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="3" style="text-align: center;">1000 minute target</td> </tr> <tr> <td style="text-align: center;">250 Saturday</td> <td style="text-align: center;">260 Sunday</td> <td style="text-align: center;">490 left to complete</td> </tr> </table> <p>Answer: They need to complete 490 more minutes of training. Check with the inverses: $510 - 250 = 260$ $510 + 490 = 1000$ $510 - 260 = 250$ $490 + 510 = 1000$</p>	1000 minute target			250 Saturday	260 Sunday	490 left to complete						
1000 minute target													
250 Saturday	260 Sunday	490 left to complete											

4.

376 matches			
98 drawn	30 lost	86 won	162 left to play

Calculations: $250 + 260 = 510$ $1000 - 510 = 490$

Answer: They have **162** games still left to play.

Check with the inverses: $214 - 98 - 30 = 86$ $162 + 214 = 376$

$214 - 30 - 86 = 98$ $214 + 162 = 376$

$214 - 86 - 98 = 30$

Addition and Subtraction Bar Model Word Problems

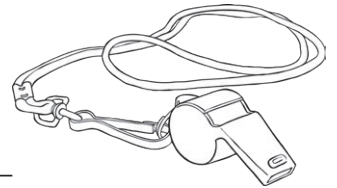
Complete the bar models to solve the word problems. Underneath each bar model, write out the calculation using addition or subtraction. Check your answers using the inverse.

- 1) The A team spend 1239 minutes training in April and 4312 minutes in May. The B team spend 7894 minutes training altogether in April and May. What is the difference in training time between the A team and the B team?

Calculations: _____

The difference in training time between the A team and the B team is _____ minutes.

Check with the inverses: _____



- 2) There are 989 footballs in one container and 1459 footballs in another. 1876 balls are used for practice during the season. How many balls are not used?

Calculations: _____

Answer: _____

Check with the inverses: _____

3) A football coach charges £26 for an hour's session. It also costs £17 an hour to hire the pitch. How much will it cost the football club to have 3 hours of training?

Calculations: _____

Answer: _____

Check with the inverses: _____

4) The football team have a budget of £4653 to spend this year. They have spent £3827 so far. They hold a charity event and raise £560. How much money do they have left to spend this year?

Calculations: _____

Answer: _____

Check with the inverses: _____

Addition and Subtraction Bar Model Word Problems **Answers**

Question	Answer								
1.									
	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="2" style="text-align: center;">5551 A Team</td> </tr> <tr> <td style="text-align: center;">1239 April</td> <td style="text-align: center;">4312 May</td> </tr> </table> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="2" style="text-align: center;">7894 B Team</td> </tr> <tr> <td style="text-align: center;">5551 A Team</td> <td style="text-align: center;">2343 difference</td> </tr> </table> <p>Calculations: $1239 + 4312 = 5551$ $7894 - 5551 = 2343$ The difference in training time between the A team and the B team is 2343 minutes. Check with the inverses: $5551 - 1239 = 4312$ $5551 + 2343 = 7894$ $5551 - 4312 = 1239$ $2343 + 5551 = 7894$</p>	5551 A Team		1239 April	4312 May	7894 B Team		5551 A Team	2343 difference
5551 A Team									
1239 April	4312 May								
7894 B Team									
5551 A Team	2343 difference								
2.									
	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="2" style="text-align: center;">2448 footballs</td> </tr> <tr> <td style="text-align: center;">989 one container</td> <td style="text-align: center;">1459 another container</td> </tr> </table> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="2" style="text-align: center;">2448 footballs</td> </tr> <tr> <td style="text-align: center;">1876 used</td> <td style="text-align: center;">572 not used</td> </tr> </table> <p>Calculations: $989 + 1459 = 2448$ $2448 - 1876 = 572$ Answer: 572 balls are not used. Check with the inverses: $2448 - 989 = 1459$ $572 + 1876 = 2448$ $2448 - 1459 = 989$ $1876 + 572 = 2448$</p>	2448 footballs		989 one container	1459 another container	2448 footballs		1876 used	572 not used
2448 footballs									
989 one container	1459 another container								
2448 footballs									
1876 used	572 not used								

3.

£78 three hours coach		
£26 one hour coach	£26 one hour coach	£26 one hour coach
£51 three hours pitch		
£17 one hour pitch	£17 one hour pitch	£17 one hour pitch
£129 training		
£78 coach		£51 pitch

Calculations: $£26 + £26 + £26 = £78$

$£78 + £51 = £129$

$£17 + £17 + £17 = £51$

Answer: 3 hours of training will cost **£129**.

Check with the inverses: $£78 - £26 - £26 = £26$

$£129 - £51 = £78$

$£61 - £17 - £17 = £17$

$£129 - £78 = £51$

4.

£4653 budget	
£3827 spent	£826 left in budget
£1386 budget	
£826 left in budget	£560 raised

Calculations: $£4653 - £3827 = £826$ $£826 + £560 = £1386$

Answer: They have **£1386** left to spend this year.

Check with the inverses: $£826 + £3827 = £4653$

$£1386 - £826 = £560$

$£3827 + £826 = £4653$

$£1386 - £560 = £826$