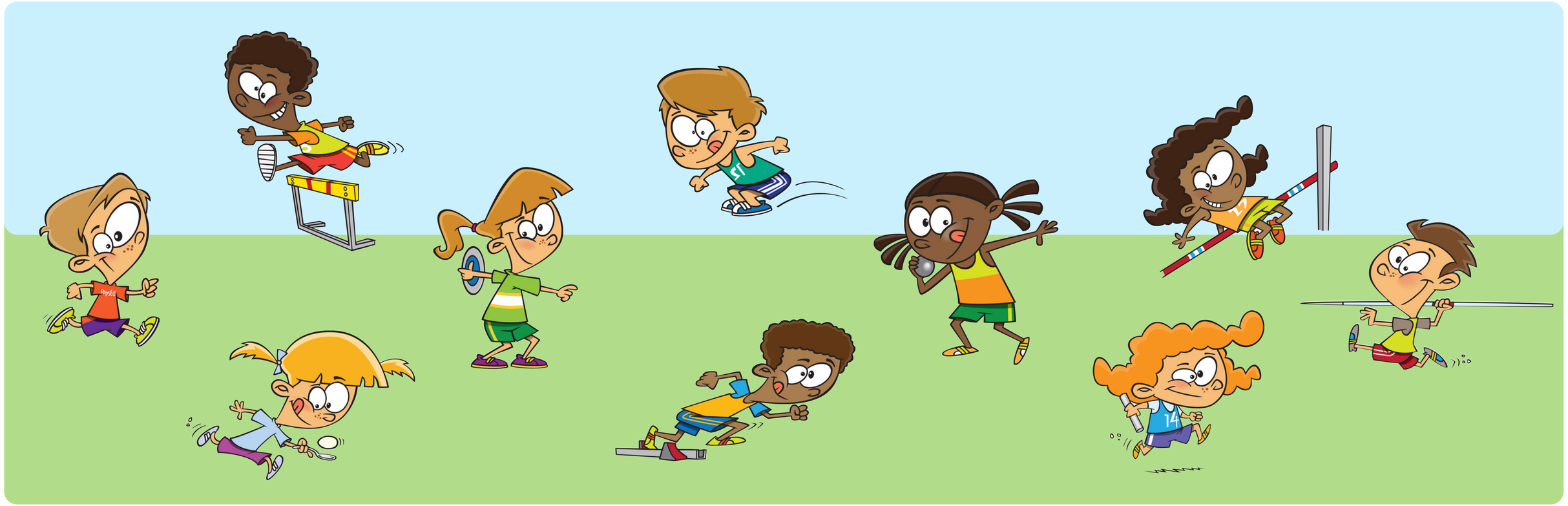
Using Addition and Subtraction 1



Learning Objective:

To solve addition and subtraction word problems using the column method

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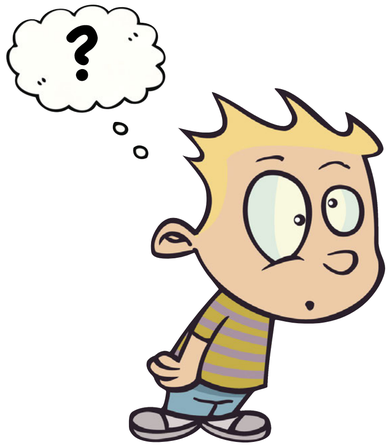
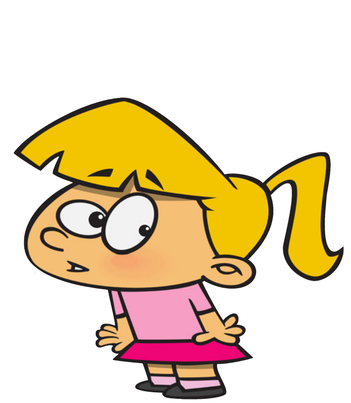
Now that you know how to use the formal column method to solve both addition and subtraction number sentences, can you help these children to complete their questions? They are all a bit stuck!

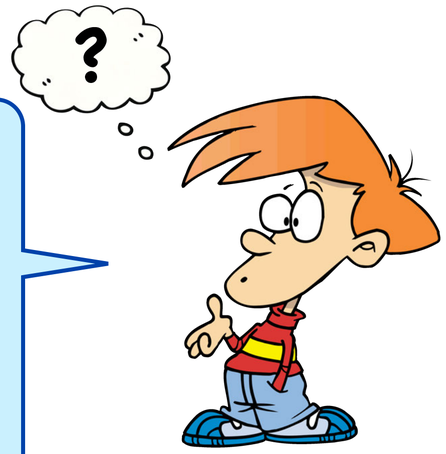


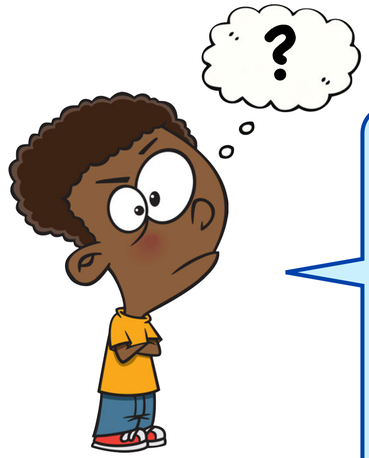
	7	2	~~3~~ 2	14
−	2	4	5	7
				7

	6	6	7	1
+	5	6	4	3
			1	4
		1		



	5	7	8
	4	6	5
+	2	7	3
			6
	1		





	~~3~~ 2	10	0	6
−	1	1	2	8

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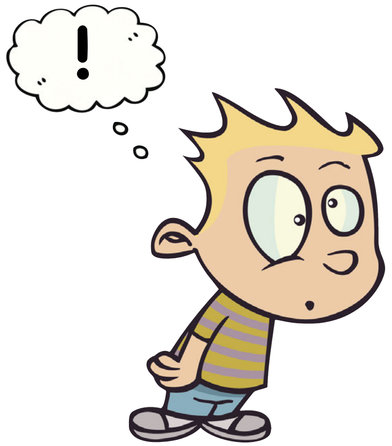
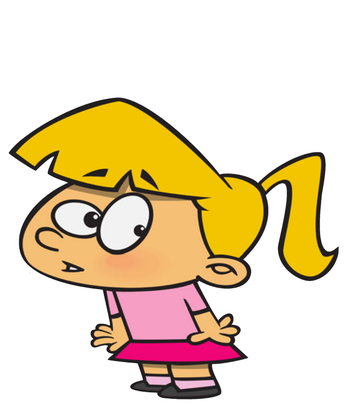
Did you manage to help them solve their questions?

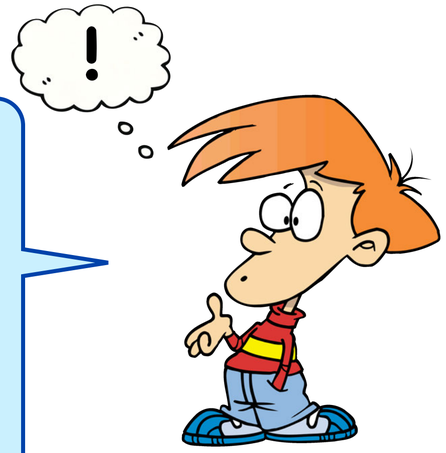


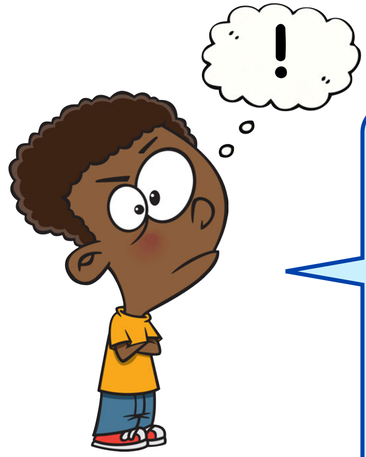
	6	7	11 2	12 3	14
-	2	4	5	7	
	4	7	7	7	

	6	6	7	1
+	5	6	4	3
1	2	3	1	4
	1	1		



	5	7	8
	4	6	5
+	2	7	3
1	3	1	6
	2	1	





	2 3	9 10	9 10	16
-	1	1	2	8
	1	8	7	8

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Today we are going to apply our knowledge and understanding of how to use the column method to solve word problems involving addition and subtraction!

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Amelia throws the javelin 932cm on her first attempt, and 1129cm on her second attempt. What is the combined total of her two scores?

Do we need to use addition or subtraction?

Is this a one-step or a two-step question?

What is the estimated answer using rounding to the nearest 100?

Think, pair, then share your ideas.

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Amelia throws the javelin 932cm on her first attempt, and 1129cm on her second attempt. What is the combined total of her two scores?

This is a one-step addition question. This is how we **could** set out the calculation (as it is an addition, the numbers could be added in any order).

Our estimated answer should be
1100 + 900 = 2000

Can you solve it? Remember to check your answer against the estimate.

	1	1	2	9
+		9	3	2

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Amelia throws the javelin 932cm on her first attempt, and 1129cm on her second attempt. What is the combined total of her two scores?

Amelia's combined total for the javelin event is **2061cm**.

Did you get this right?

	1	1	2	9
+		9	3	2
	2	0	6	1
	1		1	

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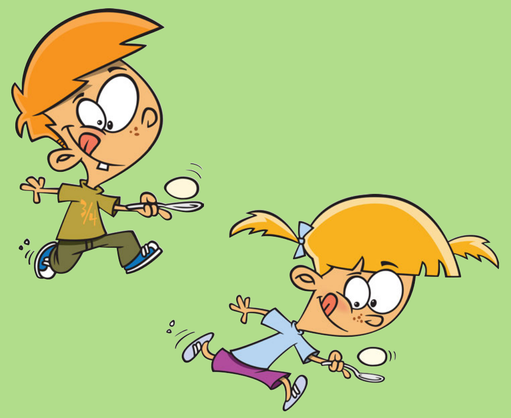

Carrie travels 1646cm further than Arnold in the egg & spoon race before dropping her egg. If Carrie travels a total distance of 5573cm, what distance does Arnold travel before he drops his egg??

Do we need to use addition or subtraction?

Is this a one-step or a two-step question?

What is the estimated answer using rounding to the nearest 100?

Think, pair, then share your ideas.

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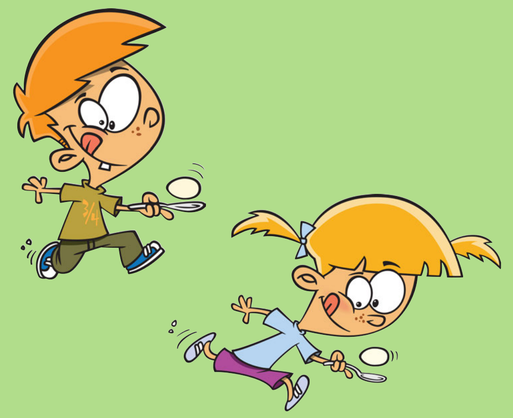

Carrie travels 1646cm further than Arnold in the egg & spoon race before dropping her egg. If Carrie travels a total distance of 5573cm, what distance does Arnold travel before he drops his egg??

	5	5	7	3
-	1	6	4	6

This is a one-step subtraction question. This is how we **should** set out the calculation (as it is a subtraction, the largest number must go on top).

Our estimated answer should be
5600 - 1600 = 4000

Can you solve it? Remember to check your answer against the estimate.

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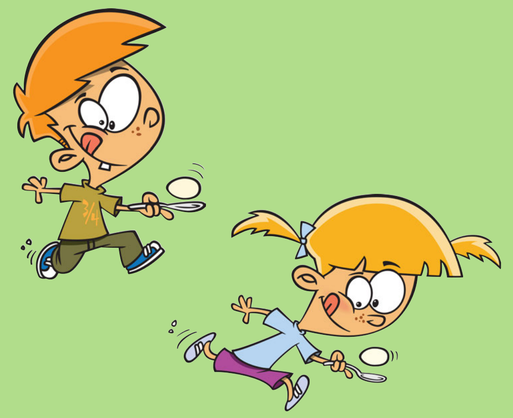

Carrie travels 1646cm further than Arnold in the egg & spoon race before dropping her egg. If Carrie travels a total distance of 5573cm, what distance does Arnold travel before he drops his egg??

	$^{4}\cancel{5}$	$^{1}5$	$^{6}\cancel{7}$	$^{1}3$
-	1	6	4	6
	3	9	2	7

Arnold travels **3927cm** before dropping his egg.

Did you get this right?

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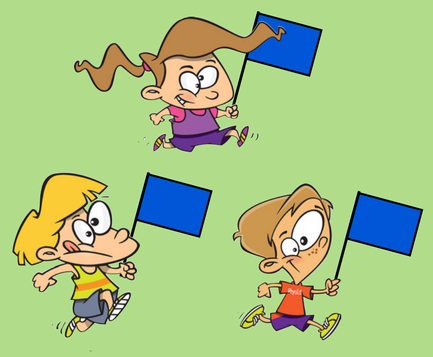

Eric, Alice and Sam are in the blue team. They score 457, 289 and 676 points in the 100m running race. Altogether, how many points is this to be added to the blue team's total score?

Do we need to use addition or subtraction?

Is this a one-step or a two-step question?

What is the estimated answer using rounding to the nearest 100?

Think, pair, then share your ideas.

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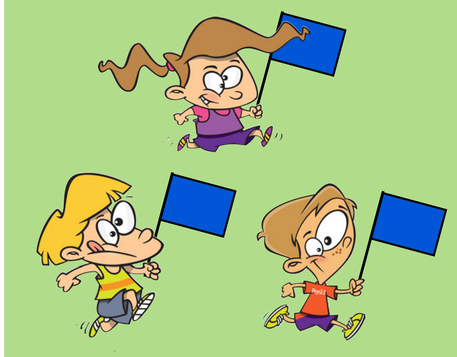

Eric, Alice and Sam are in the blue team. They score 457, 289 and 676 points in the 100m running race. Altogether, how many points is this to be added to the blue team's total score?

This is a one-step addition question. This is how we **could** set out the calculation (as it is an addition, the numbers can be added in any order).

Our estimated answer should be
500 + 300 + 700 = 1500

Can you solve it? Remember to check your answer against the estimate.

	4	5	7
	2	8	9
+	6	7	6

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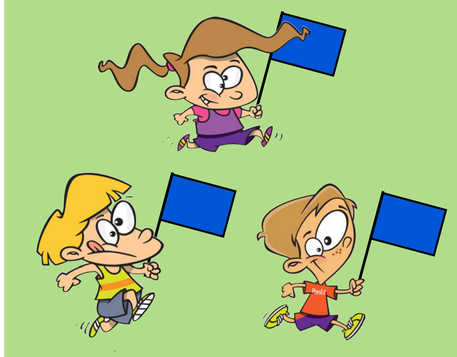

Eric, Alice and Sam are in the blue team. They score 457, 289 and 676 points in the 100m running race. Altogether, how many points is this to be added to the blue team's overall score?

Eric, Alice and Sam have added **1422** points to the blue team's overall score.

Did you get this right?

	4	5	7
	2	8	9
+	6	7	6
1	4	2	2
	2	2	

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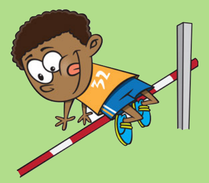

Elijah scored 1983 more points than Kerry in the high jump event. Elijah scored 3265 points. What was their total combined score?

Do we need to use addition or subtraction?

Is this a one-step or a two-step question?

What is the estimated answer using rounding to the nearest 100?

Think, pair, then share your ideas.

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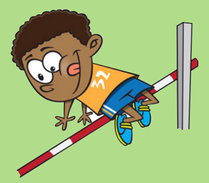

Elijah scored 1983 more points than Kerry in the high jump event. Elijah scored 3265 points. What was their total combined score?

	3	2	6	5
-	1	9	8	3

This is a two-step question. First, we need to find out how many points Kerry scored. We can do this by subtracting the 1983 more points that Elijah scored than Kerry from Elijah's score. This is how we **should** set it out.

Our estimated answer to the first part should be

3300 - 2000 = 1300

Can you solve the first step? Remember to check your answer against the estimate.

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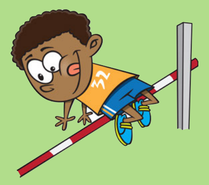

Elijah scored 1983 more points than Kerry in the high jump event. Elijah scored 3265 points. What was their total combined score?

	$^{2}\cancel{3}$	$^{11}\cancel{2}$	$^{1}6$	5
-	1	9	8	3
	1	2	8	2

Kerry scored **1282** points.

How do we calculate the answer to the second step of the question?

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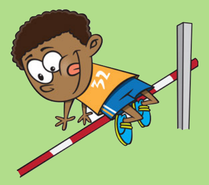

Elijah scored 1983 more points than Kerry in the high jump event. Elijah scored 3265 points. What was their total combined score?

	1	2	8	2
+	3	2	6	5

We now need to add Kerry's points to Elijah's points to find out their combined total score.

Our estimated answer to the second part should be

1300 + 3300 = 4600

Can you solve the second step? Remember to check your answer against the estimate.

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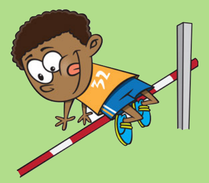

Elijah scored 1983 more points than Kerry in the high jump event. Elijah scored 3265 points. What was their total combined score?

	1	2	8	2
+	3	2	6	5
	4	5	4	7

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Elijah and Kerry's combined scores add up to **4547** points.

Did you calculate both steps correctly? Well done!

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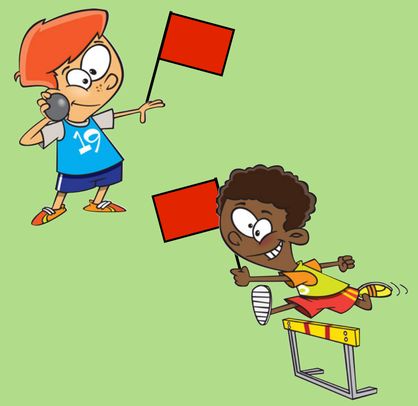

The red team win a total of 4678 points in the shot put event, and 5263 points in the hurdles event. However, 2050 points are then deducted from their score due to a red team member not showing good sportsmanship by 'booing' another team.

Do we need to use addition or subtraction?

Is this a one-step or a two-step question?

What is the estimated answer using rounding to the nearest 100?

Think, pair, then share your ideas.

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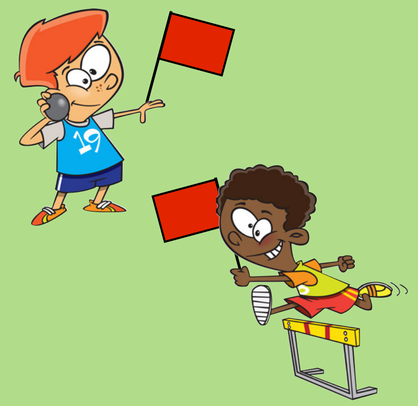

The red team win a total of 4678 points in the shot put event, and 5263 points in the hurdles event. However, 2050 points are then deducted from their score due to a red team member not showing good sportsmanship by 'booing' another team.

This is a two-step question. The first step is to add up the points from the two events. This is how we **could** set it out.

Our estimated answer for the first step should be

4700 + 5300 = 10,000

Can you solve the first step? Remember to check your answer against the estimate.

	4	6	7	8
+	5	2	6	3

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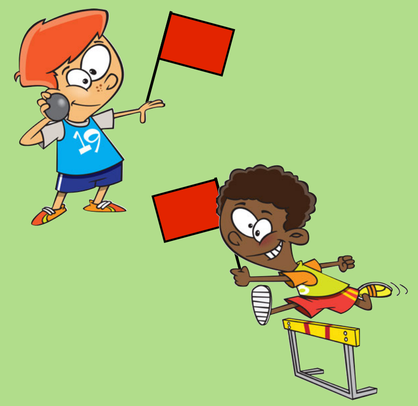

The red team win a total of 4678 points in the shot put event, and 5263 points in the hurdles event. However, 2050 points are then deducted from their score due to a red team member not showing good sportsmanship by 'booing' another team.

The red team's total score for the shot put and the hurdles events is **9941** points.

What is the second step we need to calculate?

Think, pair, then share your ideas.

	4	6	7	8
+	5	2	6	3
	9	9	4	1
		1	1	

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The red team win a total of 4678 points in the shot put event, and 5263 points in the hurdles event. However, 2050 points are then deducted from their score due to a red team member not showing good sportsmanship by 'booing' another team.

We need to use our answer from the first step. For the second step we need to take away the points that have been deducted from the total score for the two events.

Our estimated answer for the second step should be

9900 - 2100 = 7800

Can you solve the second step? Remember to check your answer against the estimate.

	9	9	4	1
-	2	0	5	0

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The red team win a total of 4678 points in the shot put event, and 5263 points in the hurdles event. However, 2050 points are then deducted from their score due to a red team member not showing good sportsmanship by 'booing' another team.

The red team's overall score for the two events after the deduction is made is **7891** points.

Did you calculate both steps correctly?
Well done!

	9	~~8~~ 9	1 4	1
-	2	0	5	0
	7	8	9	1

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Now it's time for you to show what you have learnt over the last few days by playing games involving word problems!

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Plenary: Look at these word problems. Which would you solve using the column method, and which might you solve another way, e.g. in your head? How did you decide?

I scored 150 points in the high jump, and my teammate scored 170 points. What was our combined score?

I travelled 2167cm before dropping my egg, but my teammate travelled 1309cm further than me. What was our total distance travelled?

On my first attempt I threw the discus 2435cm. On my second attempt I threw it 2522cm. What was the difference between my two distances?

I increased my personal best distance for the long jump by 110cm! My new personal best distance is 345cm. What was my previous personal best distance?

Think, pair, then share your ideas.

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