

Reasoning and Problem Solving
Four Operations Consolidation – Year 6



It's the Women's Football Cup Final at the end of this month and your fan club are planning a trip to support the local team.

There's a lot of organisation needed to ensure the trip is a success, and that the club get the best deal for their money.

You have been assigned the role of budget management; all spending is signed off by you. Get going, everyone's relying on you and there's heaps to do before the big match!

First thing to organise is the strip. The club has created a memorial strip to celebrate reaching the cup final and the orders are flying in; you can't keep up with demand.


1a. Last week you ordered 73 shirts and were quoted £1,022, but now the order has increased by 21 more shirts! What will the new total price be?



1b. You want to make at least £18 profit on each shirt. How much is the minimum you need to sell the shirts for?

2. You've had a quote passed to you by the club secretary. She has ordered some whistles and rattles for the fans to make a racket at the game. Unfortunately, it got wet when she spilt some coffee on it. You need to sort out the missing figures.

Quote for 
whistles @ 75p
each: £41.25.

The same number
of rattles @ 96p
each: 

2a. How many whistles were ordered?

2b. How much does the order of rattles come to?

2c. What is the total quote?

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3a. The tickets for the game cost £35.50 for an adult and half that for a child.

You have 67 adults and 27 children in your fan club who would like to buy a ticket. What is the total cost for the group?

3b. A new deal has come online!
For every 10 adult tickets, you will get 3 children's tickets free!
How much will you save?

4. You have been given some merchandise; 35 rubbers and 42 stickers.
How many bags will you need to share them both equally into each bag?

5. The transport company have been in touch. You will need to arrange train and bus travel to get all 94 fans to the stadium.

Train carriages seat 33 people and cost £54 per carriage, or £2.50 per person.

5a. How much will your train journey cost?



5c. What are the total travel costs?

5b. The coaches seat 25 people and cost £57 each.
How much will the coach cost?

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There's a hot meal and drink deal on at the stadium.

Usually pies cost £2.50 and drinks are £1.75.



6. If half your group buy the deal, how much money will they save altogether?

You receive a quote from a hotel offering to put everyone up overnight after the game.

7a. Check the quote below, is it accurate? If not why not?

SleepWell Hotel

RE: Quote

94 rooms @ £23 each

£2,068

Breakfast per person @ £9

£856

Total Quote: £2,904

7b. What is the correct calculation?

Rooms

Breakfast

Total

8. **YOUR TEAM WON!** Congratulations! The FA have sent a gift to cover the cost of the trip; tickets, travel, food and drinks. Your award is £3,500!

8a. Does this cover your costs?

8b. How much profit or loss does it leave you?

8c. If you have a profit, how could you spend this money to benefit all the fans?



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1a. $£1,022 \div 73 = £14$ per shirt

$£14 \times 21 = £294$

$£1,022 + £294 = £1,316$

1b. $£14 + 18 = £32$ per shirt

2a. $£41.25 \div 75p = 55$ whistles were ordered.

2b. $96p \times 55 = £52.80$ for the rattles.

2c. The total quote is $£94.05$.

3a. $£35.50 \div 2 = £17.75$ for a child ticket

$67 \times £35.50 = £2,378.50$

$27 \times £17.75 = £479.25$

Total Cost: $£2,378.50 + £479.25 = £2,857.75$

3b. $6 \times 3 = 18$. $18 \times £17.75 = £319.50$ will be saved.

4. 7 bags

5a. There are 94 seats needed.

Train: $94 \div 33 = 2$ coaches and 28 remaining

2 carriages $\times £54 = £108$

28 single seats = $£70$

Train travel cost: $£178$

5b. Coach: Need to book 4 coaches to fit 94 people on. $£57 \times 4 = £228$

Coach travel cost: $£228$

5c. Total cost: $£178 + £228 = £406$

6. Half of the group = 47. $£2.50 + £1.75 = £4.25$

$£4.25 - £3.75 = 50p$ saving

$47 \times 50p = £23.50$ saving

7a. The quote is not accurate.

The rooms and breakfast have been mis-calculated, therefore the final total is incorrect.

7b. Rooms: $94 \times £23 = £2,162$

Breakfast: $94 \times £9 = £846$

Total: $£3,008$

8a. Tickets: $£2,538.25 +$ Travel Cost: $£406 +$ Food: $£176.25 =$ Total: $£3,120.50$ Yes, the amount given from the FA will be enough to cover the trip, with extra left over.

8b. $£3,500 - £3,120.50 = £379.50$ profit

8c. Various answers, for example: help to cover hotel costs; help to cover T-shirt costs; help to cover costs of whistles and rattles; a party to celebrate; doing up the fan club; reducing ticket prices etc.