

Multi-step problem solver: event budget

Pupil activity

Audience: Years 8 to 12 Mathematics pupils

Calculate event income and costs from unit prices, then find the surplus and check it with an estimate.

Problem

A school event sells 48 standard tickets at £8.50 and 32 concession tickets at £5.00. The venue costs £210. Materials cost £2.25 per attendee. Find the surplus before other costs.

1. Estimate first

Round 48 standard tickets to 50 and keep the unit price £8.50.

Estimate	My calculation	Estimated amount
Standard ticket income	$50 \times £8.50$	£_____
Concession ticket income	$32 \times £5.00$	£_____
Total estimated income		£_____
Materials for about 80 attendees	$80 \times £2.25$	£_____
Venue and estimated materials		£_____
Estimated surplus	income – costs	£_____

2. Calculate exactly

Amount	My working	Exact total
Standard ticket income		£_____
Concession ticket income		£_____
Total income		£_____
Materials for all attendees		£_____
Total costs including venue		£_____
Surplus before other costs		£_____

3. Compare

Is your exact answer close to your estimate? Explain with one number: _____
