

Welcome to this week's Maths Challenge!

It's fine to have a go at both questions!

Solutions must be explained in detail, responses with just the answer may be ignored.

Drop your solution in the box in the staffroom by Tuesday.

Year 8 and below

Thirty-one people took an exam and each person achieved a different, whole number score, from 70 to 100. The average of the scores is calculated. Then one person's score is removed, but when the average is recalculated, it has not changed, the new mean is the same as the mean of the original 31 marks. Which score was taken out?

Year 9 and above

The diagram shows a trapezium. The line of length 3 cm is perpendicular to the two parallel lines of the trapezium. The purple area is $6\,\mathrm{cm}^2$ greater than the green area. Find the length x.

