Day 252	B Tier 10-a-day
1 WXYZ is a kite with WX = WZ and YX = YZ. Angle ZWX = 118° and angle XYZ = 86°. Work out the size of angle WXY.	
2 Coffee is sold in two sizes. Small: 250 g for 60p Large: 500 g for 90p Which size is better value for money? You must show your working.	
3 A triangle has sides of length (3x + 5) cm, (x − 4) cm and (2x + 5) cm. Write down an expression, in terms of x, for the perimeter of the triangle. Give your answer in its simplest form.	
4 A triangle has sides of length 12 cm, 5 cm and 14 cm. Is the triangle right-angled? You must show your working.	
5 In a room, the ratio of boys to girls is 5 : 9. There are 63 girls. More boys join so that there are equal numbers of boys and girls. How many boys join?	

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6 Solve $6(x - 1) = 3(x - 3)$	
7 The price of a laptop is £200. The price is first reduced by 20%, then the new price is reduced by 10%. (a) Work out the final price. (b) Work out the overall percentage decrease in the price.	
8 Triangle PQR is isosceles with PQ = PR = 11 m. (Calculator) The base QR = 12 m. Work out the size of angle PQR. Give your answer correct to 1 decimal place.	
9 Solve $x^2 - 5x + 6 = 0$	
10 Work out (a) $\frac{3}{5}$ of 40 (b) $\frac{1}{3}$ of £12	