Day 139	A Tier 10-a-day
1 (a) Write 0.026614 correct to 2 significant figures. (b) Write 8.293 correct to 1 decimal place.	
2 A triangle has sides of length 11 cm, 8 cm and 6 cm. Is the triangle right-angled? You must show your working.	
3 A shop sells flour in 2 different sizes. Small bag: 250 g for 95p Large bag: 1000 g for £3.70 Which bag is the best value for money? You must show your working.	
4 Write as a single fraction in its simplest form $\frac{x+2}{2} + \frac{x+6}{5}$	
5 Solve $3^{3x-3} = 729$	

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6 Tom cycles 100 km at 25 km/h and then a further 100 km at 100 km/h. Work out the average speed for the whole journey.	
7 On a stage, a red light flashes every 6 seconds. A green light flashes every 8 seconds. They flash together at the start. After how many seconds will they next flash together?	
8 y is directly proportional to the square root of x. When x = 64, y = 40. (a) Find a formula for y in terms of x. (b) Work out the positive value of x when y = 15.	
9 Solve $\frac{6}{(x-4)} + \frac{2}{(x+3)} = 1$	
10 The diagram shows a cuboid. Work out the length of the diagonal AG. The diagram is not drawn accurately. 	