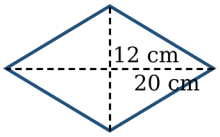
Day 81	A Tier 10-a-day
1 The diagram shows a rhombus. The diagonals are 20 cm and 12 cm and cross at right angles. Work out the area of the rhombus. The diagram is not drawn accurately.  	
2 A crate rests on an area of 2.5 m^2 of the floor. The pressure on the floor is 120 N/m^2. Work out the force exerted by the crate.	
3 $\frac{2}{5}$ of the students in a school are in Year 11. There are 26 students in Year 11. How many students are in the school?	
4 3 footballs and 3 netballs cost £27. 4 footballs and 3 netballs cost £34. Work out the cost of one netball.	
5 In a sale, all prices are reduced by 30%. (Calculator) A jacket costs £259 in the sale. Work out the original price of the jacket.	

Day 81	A Tier 10-a-day
6 C is the point (0, −3) and D is the point (−4, −10). (a) Find the midpoint of CD. (b) Work out the length of CD. Give your answer as a surd in its simplest form.	
7 A bag contains 4 red, 3 blue and 4 green counters. Two counters are taken at random without replacement. Work out the probability that the two counters are different colours.	
8 A is the point (1, 3) and B is the point (−7, −3). Find the equation of the perpendicular bisector of AB.	
9 Two similar model boats have heights 4 cm and 12 cm. The smaller one has a volume of 3 cm^3. Work out the volume of the larger one.	
10 Hassan invests £13,000 in a savings account. (Calculator) Compound interest is paid at a fixed rate each year. After 2 years the investment is worth £15,163.20. Work out the annual rate of interest.	