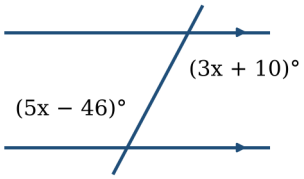
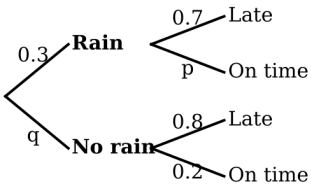
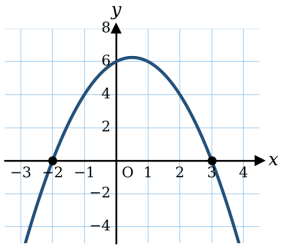
Day 165	A Tier 10-a-day
1 A cuboid has length 14 cm and width 10 cm. Its total surface area is 424 cm^2. Work out the height of the cuboid.	
2 A cyclist rides 75 km at 30 km/h. Work out the time taken. Give your answer in hours and minutes.	
3 The diagram shows two parallel lines crossed by a straight line. (a) Work out the value of x. (b) Work out the size of the angle marked (3x + 10)°. The diagram is not drawn accurately. 	
4 Here are the first four terms of a sequence. 9, 16, 23, 30 (a) Find an expression for the nth term. (b) Is 262 a term of this sequence? You must show your working.	
5 The tree diagram shows probabilities for two events. (a) Work out the values of p and q. (b) Work out the probability of rain and late. 	

Day 165	A Tier 10-a-day
6 The diagram shows the graph of $y = -x^2 + bx + c$. Find the value of b and the value of c.  	
7 The price of a games console changes from £200 to £290. Work out the percentage increase.	
8 Expand and simplify $(6 - 3\sqrt{5})^2$ Give your answer in the form $a + b\sqrt{c}$	
9 Shape A has an area of 8 cm^2. Shape A is enlarged by scale factor 4 to give shape B. Work out the area of shape B.	
10 Tom invests £19,500 in a savings account. (Calculator) Compound interest is paid at a fixed rate each year. After 2 years the investment is worth £28,080. Work out the annual rate of interest.	