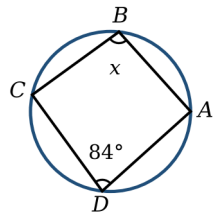
Day 276	B Tier 10-a-day
1 Each exterior angle of a regular polygon is 45°. Work out the number of sides of the polygon.	
2 Here are the times, in seconds, taken to run 100 m. 25, 25, 17, 29, 33, 28, 10, 31, 12 (a) Find the median. (b) Work out the range.	
3 Solve $2(3x - 5) = 14$	
4 (a) The point P(−3, −1) is rotated 90° anticlockwise about the origin. Write down the coordinates of the image. (b) The point P(−3, −1) is rotated 90° clockwise about the origin. Write down the coordinates of the image.	
5 A steel bar has a density of 7.8 g/cm^3 and a volume of 40 cm^3. Work out its mass.	

Day 276	B Tier 10-a-day
6 The price of a laptop is £40. The price is first reduced by 25%, then the new price is increased by 10%. (a) Work out the final price. (b) Work out the overall percentage decrease in the price.	
7 Solve $x^2 - 8x = 0$	
8 A, B, C and D are points on a circle. Angle ADC = 84°. Work out the size of angle ABC, marked x. Give a reason for your answer. The diagram is not drawn accurately. 	
9 The length of a rectangle is 28 cm and its width is 15 cm. Both measurements are correct to the nearest cm. Work out the lower bound for the area of the rectangle.	
10 A rectangle has length (x + 2) cm and width (x − 3) cm. The area of the rectangle is 14 cm^2. (a) Show that $x^2 - x - 20 = 0$ (b) Hence work out the length of the rectangle.	