Day 9	B Tier 10-a-day
1 PQRS is a trapezium with PQ parallel to SR. Angle SPQ = 91°. Angle QRS = 102°. Work out the size of angle PQR.	
2 Estimate the value of 9.18 × 28.7 + 4.04 Show your rounding to 1 significant figure.	
3 $\mathbf{a} = \begin{pmatrix} -5 \\ 5 \end{pmatrix}$ $\mathbf{b} = \begin{pmatrix} 7 \\ -4 \end{pmatrix}$ Work out (a) $2\mathbf{a} - \mathbf{b}$ (b) $\mathbf{a} + 3\mathbf{b}$	
4 Solve $\frac{y}{3} + 5 = 10$	
5 Mohammed is paid £14 per hour for a 30 hour week. (Calculator) Overtime is paid at double time. In one week he works 4 hours of overtime. Work out his total pay for that week.	

Day 9	B Tier 10-a-day
6 Expand and simplify $(x - 6)^2$	
7 There are 5.5×10^6 fish in a lake. The number triples every day. How many are there after 4 days? Give your answer in standard form.	
8 A bus travels at 162 km/h. Work out its speed in metres per second.	
9 A theme park sells adult tickets and child tickets. 2 adult tickets and 3 child tickets cost £43. 1 adult ticket and 3 child tickets cost £35. Work out the cost of one adult ticket and the cost of one child ticket.	
10 C is directly proportional to t. When t = 12, C = 9. Find a formula for C in terms of t.	