Day 325	B Tier 10-a-day
1 In a pie chart showing the answers of 40 people, the angle for football is 162°. How many people chose football?	
2 Here are the first four terms of a sequence. 6, 6, 12, 18 (a) Write down the next two terms. (b) Describe the rule for continuing the sequence.	
3 Amy, Chloe and Aisha share 143 marbles in the ratio 4 : 5 : 4. Work out how many Aisha gets.	
4 $\mathbf{a} = \begin{pmatrix} -4 \\ -3 \end{pmatrix}$ $\mathbf{b} = \begin{pmatrix} 1 \\ 6 \end{pmatrix}$ Work out (a) $\mathbf{a} + 2\mathbf{b}$ (b) $3\mathbf{a} + 2\mathbf{b}$	
5 Find the (a) highest common factor (HCF), (b) lowest common multiple (LCM) of 28 and 49.	

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6 Make x the subject of the formula $y = \frac{x + 6}{3}$	
7 Work out the value of this expression. (Calculator) $\frac{7.9 + 3.8}{1.4 \times 2.8}$ Give your answer correct to 2 significant figures.	
8 7 apples cost £2.80. (a) Work out the cost of 3 apples. (b) How many apples can be bought for £2.80?	
9 A block of ice is a cuboid measuring 4 cm by 10 cm by 7 cm. The density of ice is 0.9 g/cm^3. Work out the mass of the block.	
10 A theme park sells adult tickets and child tickets. 1 adult ticket and 2 child tickets cost £26. 3 adult tickets and 2 child tickets cost £58. Work out the cost of one adult ticket and the cost of one child ticket.	