Day 260	A Tier 10-a-day
1 (a) A train leaves London at 1115. The journey takes 2 hours 37 minutes. Work out the time it ends. (b) Change 3.4 hours into hours and minutes.	
2 (a) Solve $-11 \leq 4x - 7 < 1$ (b) Write down all the integer values of x that satisfy this inequality.	
3 The price of a bicycle helmet changes from £60 to £45.60. Work out the percentage decrease.	
4 A triangle has sides of length 21 cm, 29 cm and 20 cm. Is the triangle right-angled? You must show your working.	
5 No tax is paid on the first £11,000 of income. Tax of 25% is paid on the next £30,000. Tax of 35% is paid on all income above £41,000. (Calculator) Aisha earns £48,500 a year. Work out the income tax paid.	

Day 260 **A Tier 10-a-day**

6 A sector of a circle has radius 8 cm and an arc length of 4π cm.
Work out the angle at the centre of the sector.

7 $f(x) = \frac{x - 1}{3}$

(a) Find $f^{-1}(x)$

(b) Work out $f^{-1}(4)$

8 Solve $5^{4x - 1} = 125$

9 The table shows information about 61 people.
One person is chosen at random.
(a) Find the probability that the person studies French.
(b) The person is a girl. Find the probability that they studies Spanish.

	French	Spanish	Total
Boys	26	21	47
Girls	7	7	14
Total	33	28	61

10 Make x the subject of $y = \frac{5x + 1}{-x + 2}$