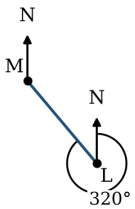
Day 108	A Tier 10-a-day
1 Work out $2\frac{1}{5} + 3\frac{1}{2}$ Give your answer as a mixed number in its simplest form.	
2 y is directly proportional to the square of x. When x = 3, y = 72. (a) Find a formula for y in terms of x. (b) Work out the value of y when x = 5.	
3 A solid cuboid measures 6 cm by 10 cm by 3 cm. It is made of a material with density 2.7 g/cm^3. Work out the mass of the cuboid in kilograms.	
4 The bearing of M from L is 320°. Work out the bearing of L from M. The diagram is not drawn accurately. 	
5 A house is worth £200000. (Calculator) Its value increases by 25% each year. Work out its value after 3 years., to the nearest pound.	

Day 108 **A Tier 10-a-day**

6 An isosceles triangle has two equal sides of length (4x + 7) cm and (3x + 13) cm.
The third side is 13 cm.
Work out the perimeter of the triangle.

7 The value of a car falls by 20% each year.
(Calculator)
After 2 years it is worth £4,160.
Work out its value at the start.

8 The table shows the probabilities of the outcomes of a biased spinner.
(a) Work out the value of x.
(b) The spinner is spun 200 times. Estimate the number of times it lands on 3.

Score	1	2	3	4
Probability	0.25	x	2x	0.3

9 Solve $9^x = \frac{1}{27}$

10 Make x the subject of $y = \frac{2x - 5}{x - 6}$