Day 74	B Tier 10-a-day
1 The ratio of cats to dogs among the pets at a rescue centre is 8 : 3. There are 15 dogs. How many cats are there?	
2 Chloe has £240. They spends $\frac{1}{4}$ of the money on a book. They then spends $\frac{3}{4}$ of the money left on a drink. How much money is left?	
3 A rectangle is 9 cm long and 2 cm wide. It is enlarged by scale factor 2. (a) Write down the length and width of the enlarged rectangle. (b) Work out the perimeter of the enlarged rectangle.	
4 Solve $2(x - 6) = -16$	
5 Beth is paid £13 per hour for a 40 hour week. (Calculator) Overtime is paid at double time. In one week she works 5 hours of overtime. Work out her total pay for that week.	

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6 Work out the gradient of the straight line that passes through the points (1, 0) and (−2, 6).	
7 Two lights flash at 11:45. One light flashes every 8 minutes. The other light flashes every 12 minutes. At what time do both lights next flash together?	
8 Solve the simultaneous equations $x + 2y = 4$ $4x - 2y = 26$	
9 There are 120 students. $\frac{1}{2}$ of them are boys and the rest are girls. $\frac{2}{5}$ of the boys and $\frac{1}{5}$ of the girls walk to school. One person is chosen at random. Work out the probability that they walk to school.	
10 Triangle XYZ is isosceles with XY = XZ = 20 cm. (Calculator) The base YZ = 12 cm. Work out the size of angle XYZ. Give your answer correct to 1 decimal place.	