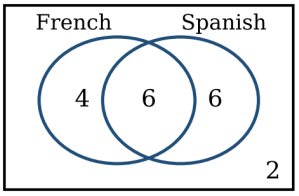
Day 125	A Tier 10-a-day
1 (a) Simplify $\sqrt{245}$ (b) Simplify $\sqrt{245} + \sqrt{45}$	
2 Solve $-2x + 9 > 13$	
3 A closed block is a cuboid measuring 13 cm by 6 cm by 3 cm. Work out the total surface area.	
4 A solid cuboid measures 10 cm by 6 cm by 5 cm. It is made of a material with density 1.2 g/cm^3. Work out the mass of the cuboid in kilograms.	
5 The price of a product increases by 30% each year for 2 years. Work out the overall percentage increase over the 2 years.	

Day 125 **A Tier 10-a-day**

6 Two similar bottles have heights 12 cm and 30 cm.
The smaller one has a volume of 56 cm^3.
Work out the volume of the larger one.

7 The Venn diagram shows information about 18 people.
One person is chosen at random.
(a) Find the probability that the person is in French only.
(b) Find the probability that the person is in neither set.



8 Rationalise the denominator of $\frac{7}{\sqrt{2}}$
Give your answer in its simplest form.

9 The table gives information about 154 measurements.
A histogram is drawn using this information.
(a) Work out the missing frequency.
(b) Work out the height of the bar for the class $55 < t \leq 70$.

Time, t (minutes)	Frequency
$0 < t \leq 15$	21
$15 < t \leq 25$	16
$25 < t \leq 55$	?
$55 < t \leq 70$	39

10 Solve the simultaneous equations
$y = x^2 + x - 9$
$y = x - 8$