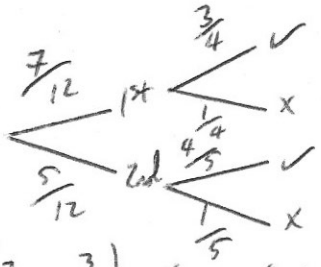
**4th June** **Higher 5-a-day**

Corbettmaths

At a university, the ratio of first year students to second year students is 7:5.
75% of the first year students belong to a club.
20% of the second year students do not belong to a club.
What percentage of all the first year and second year students belong to a club?




$\left(\frac{7}{12} \times \frac{3}{4}\right) + \left(\frac{5}{12} \times \frac{4}{5}\right) = \frac{37}{48}$ (77%)

The length of a song is 182 seconds to the nearest second.
Elena listens to the song 8 times consecutively.

Complete the error interval for the time Elena spent listening to the song.

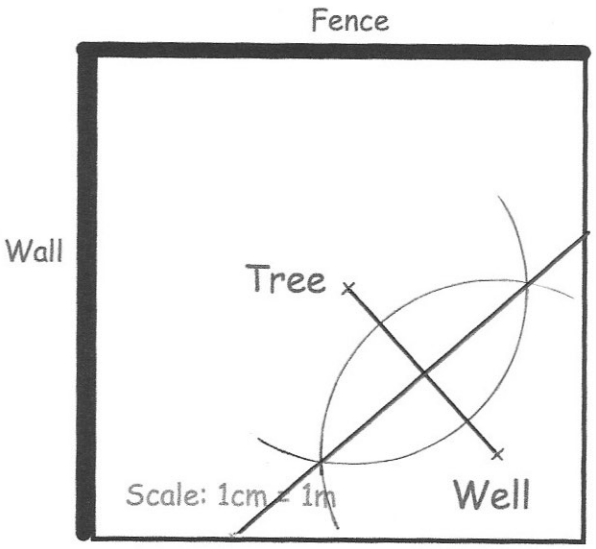
181.5 182.5

1452 ≤ t < 1460

Olivia is deciding where to place a bench

Show the possible positions of the bench for the rule

The bench is an equal distance (equidistant) from the tree and the well.




Factorise

$y^2 - x^2$

$(y - x)(y + x)$

Shape A has an area of 144cm²
Shape B is similar to Shape A with sides 3 times larger.

Work out the area of Shape B

$144 \times 3^2$

$1296\text{cm}^2$