### 24th June

**Show that** \((\sqrt{2} + 3\sqrt{8})^2 = 98\)

**Prove that** when two consecutive integers are squared, that the difference is equal to the sum of the two consecutive integers.

\((ax + 1)(x - 3)(x + b) \equiv 2x^3 - 3x^2 - 8x - 3\)

**Find the values of** \(a\) and \(b\)

**The population of birds living on an island is decreasing exponentially.**

Martin has begun to monitor the population each year.
- **Year 6** - Population 5000
- **Year 8** - Population 4000

**What was the population in Year 2?**

**Find the size of the largest angle in this triangle.**