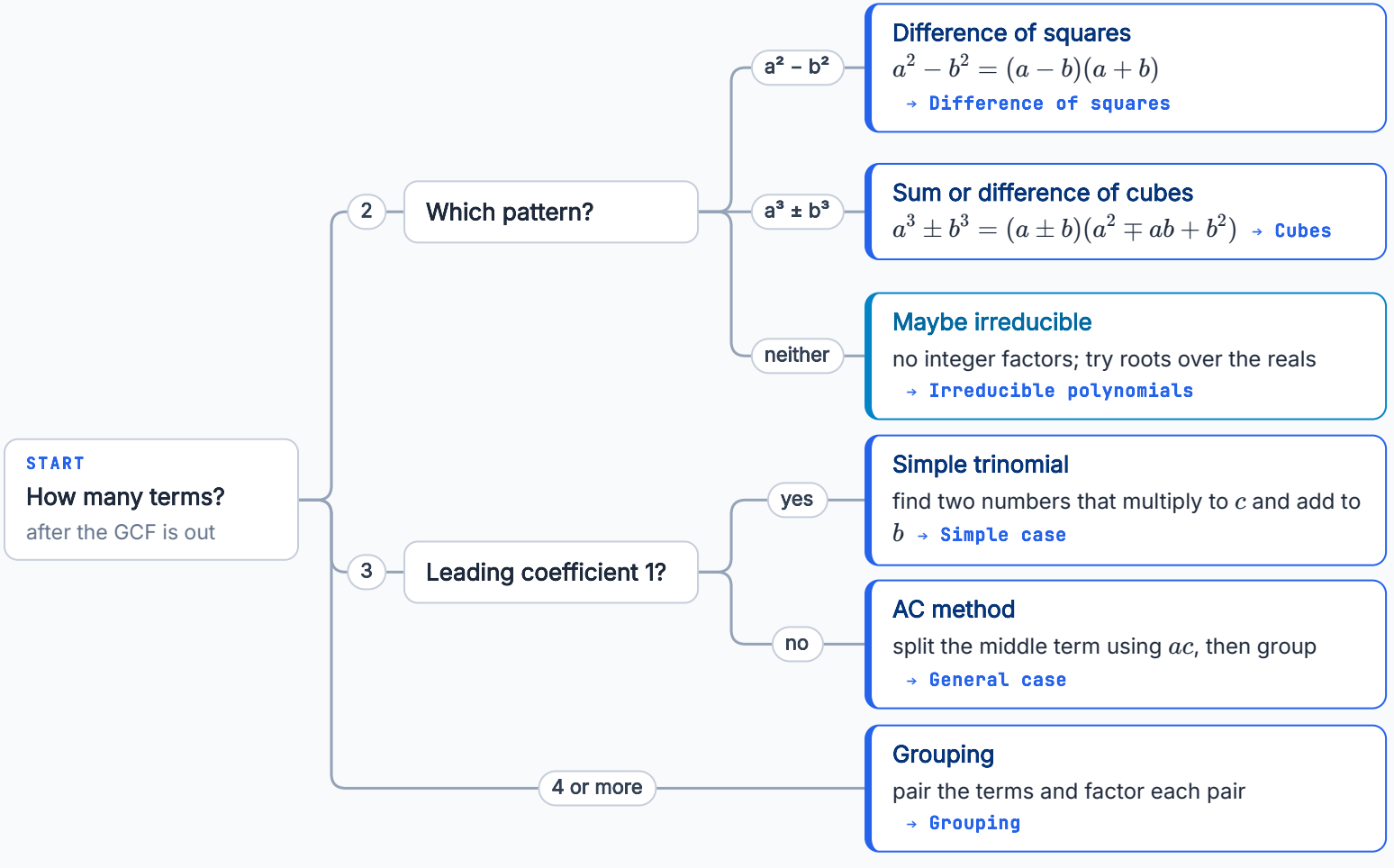
FACTORING STRATEGY

Which factoring technique?

Count the terms after taking out the GCF; the count points to the technique.

ALWAYS FIRST Take out the greatest common factor, even a lone 2 or x.



THEN Check every factor: $x^4 - 81 = (x^2 + 9)(x^2 - 9)$ still hides $(x + 3)(x - 3)$.

FINALLY Multiply the factors back together; the product must be the original polynomial.