85 = 84 + 1

85 = 5 \cdot 17

Sum of 2 squares in 2 ways
\[
\begin{align*}
85 &= 9^2 + 2^2 \\
85 &= 7^2 + 6^2
\end{align*}
\]

85-gon can be constructed with compass and straightedge.
Largest number of squares with \(1^2 + 2^2 + \ldots + 85^2 = 1^2 + 2^2 + \ldots\)

Octagonal number
Centered triangular number
Centered square number
Decagonal number

Hypotenuse of 2 primitive Pythagorean triples.

\[85^2 = 13^2 + 84^2, \quad 85^2 = 36^2 + 77^2\]

85 is idoneal. \(\frac{85^2 - 85 \pm 1}{11}\) are twin primes.
Congruent number.