$n^5 - n$

Problem

Find the largest integer that divides every term of the sequence $1^5 - 1$, $2^5 - 2$, $3^5 - 3$, …, $n^5 - n$, ….

Can you generalise your findings?

Relevance

A2 What interesting things can we do with squares and square roots?

NA3 What are highest common factors and why do they matter?