Problem of the Week
Problem C
Divisors and Number

Your friend Cael always likes challenging you. One challenge is called "*Divisors and Number*". Cael will tell you certain facts about the divisors of a number and then challenge you to find the number. Here is Cael's challenge.

"I am looking for a positive integer with exactly eight positive divisors, two of which are 21 and 33."

Determine Cael's number.