Research Paper

New Divisibility Rule of Eight

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ABSTRACT
This paper covers one of the most prime concept of mathematics. It instigates a new divisibility rule of 8. Knowledge of divisibility rules is of uttermost importance to perform long calculations, to check the divisibility of larger numbers without performing actual division, to find the factors of a given number and much more. In short, divisibility rules are vital in almost every branch of mathematics.

KEYWORDS
Divisible, divisibility rule, division

I.   INTRODUCTION

Divisibility rules form the basis of all the mathematical branches. They are used in the process of division, which is one of the most important operation in mathematics and forms the base of mathematics along with addition, subtraction, multiplication and other operations. Without the knowledge of divisibility rules, checking divisibility and finding factors of larger numbers becomes next to impossible. This article presents a new divisibility rule of eight to check the divisibility of any number by 8 easily and quickly.

DIVISIBILITY RULE

Consider any number such as 85654944.

Step 1-

Divide the last digit by 2. (if the last digit is not divisible by 2,the number is not divisible by 8)

4/2=2

Step 2-

Add this number to the two digit number obtained by the digits at the hundredth and tenth place.

94+2=96

Step 3-

If this number is divisible by 4, then the given number is divisible by 8.

96/4=24

Hence, the given number is divisible by 8.