

MathFLIX CHALLENGE

Perfect, Deficient and Abundant Numbers

Every counting number greater than 1 can be categorized as perfect, deficient or abundant.
What is your favorite counting number? _____

Study the tables below to figure out how to categorize numbers.

Perfect Numbers <i>The sum of the proper factors = the number</i>	Factorization	Sum of proper factors <i>Proper factors are all the factors of a number except the number itself.</i>
6	1 x 6 2 x 3	1 + 2 + 3 = 6
28	1 x 28 2 x 14 4 x 7	1 + 2 + 4 + 7 = 28
496	1 x 496 2 x 248 4 x 8 x 16 x	1 + 2 + 4 + 8 + 16 +

Deficient Numbers <i>The sum of the proper factors < the number</i>	Factorization	Sum of proper factors
2	1 x 2	1 < 2
3	1 x 3	1 < 3
4	1 x 4 2 x 2	1 + 2 < 4
5	1 x 5	1 < 5
7	1 x 7	1 < 7
8	1 x 8 2 x 4	1 + 2 + 4 < 8

Abundant Numbers <i>The sum of the proper factors > the number</i>	Factorization	Sum of proper factors
12	1 x 12 2 x 6 3 x 4	1 + 2 + 3 + 4 + 6 > 12

Use the back of this sheet to categorize your favorite number.

Then, categorize the following numbers as deficient or abundant: 18, 20, 24, 35, 64 and 100.