Global Geographical Number Theory

Number Theory · Practice Test · 8 Questions

1. The number of independent nations recognized by the United Nations is 193. If we subtract the smallest perfect number from this total, what is the resulting value?

A) 186
B) 187
C) 189
D) 191

2. The length of the Equator is approximately 40,075 kilometers. What is the sum of the prime factors of the first four digits of this number (4+0+0+7)?

A) 11
B) 13
C) 17
D) 19

3. Mount Everest's official height is 8,848 meters. If you calculate the product of the distinct prime factors of this four-digit integer, what is the result?

A) 221
B) 227
C) 231
D) 233

4. The Earth's circumference through the poles is approximately 40,008 km. Which of the following is the largest prime factor of the number 40,008?

A) 139
B) 167
C) 173
D) 181

5. The total number of UNESCO World Heritage sites in a specific year can change, but as of recent tallies, let's consider the number 1,154. Is this number a prime number, a perfect number, a square number, or a composite number with multiple prime factors?

A) Prime
B) Perfect
C) Square
D) Composite

6. The maximum depth of the Mariana Trench is approximately 10,984 meters. If we define the 'digital root' (the repeated sum of digits until a single digit remains) of this number, what is the result?

A) 4
B) 5
C) 6
D) 7

7. Consider the number of sovereign states that comprise the continent of Africa (54). How many proper divisors does this number have?

A) 6
B) 8
C) 10
D) 12

8. The length of the Nile River is approximately 6,650 kilometers. If you sum all the positive divisors of the integer 66 (the first two digits of the length), what is the sum?

A) 112
B) 120
C) 128
D) 144