

Facts and Formulae

- 0 is neither a prime number nor a composite number.
- 0 is neither a negative number nor a positive number.
- 1 is the only natural number that is neither a prime number nor a composite number.
- 1 is the smallest natural number.
- -1 is the largest negative integer.
- 2 is the only even prime number.
- The unit's digit of any perfect square number must be 0, 1, 4, 5, 6, or 9.
- The unit's digit of the square of a number whose unit's digit is 0 will be 0.
- The unit's digit of the square of a number whose unit's digit is 1 or 9 will be 1.
- The unit's digit of the square of a number whose unit's digit is 2 or 8 will be 4.
- The unit's digit of the square of a number whose unit's digit is 3 or 7 will be 9.
- The unit's digit of the square of a number whose unit's digit is 4 or 6 will be 6.

Properties of Numbers

- The product of two consecutive numbers is divisible by 2. For example, $4 \times 5 = 20$, which is divisible by 2.
- The product of three consecutive numbers is divisible by 6. For example, $3 \times 4 \times 5 = 60$, which is divisible by 6.
- The product of four consecutive numbers is divisible by 24. For example, $3 \times 4 \times 5 \times 6 = 360$, which is divisible by 24.
- The product of five consecutive numbers is divisible by 120. For example, $3 \times 4 \times 5 \times 6 \times 7 = 2520$, which is divisible by 120.
- The product of 'n' consecutive numbers is divisible by $1 \times 2 \times 3 \times \dots \times n$. For example, the product of ten consecutive numbers will be divisible by $1 \times 2 \times 3 \times 4 \times 5 \times 6 \times 7 \times 8 \times 9 \times 10$.
- The difference between the squares of two consecutive numbers is always equal to the sum of both numbers. For example, $16^2 - 15^2 = 16 + 15 = 31$
- The difference between the square of two consecutive odd numbers is always a multiple of 8. For example, $17^2 - 15^2 = 289 - 225 = 64$
- The sum of the first 'n' odd numbers is the square of 'n'. For example, the sum of the first five odd numbers $= 1 + 3 + 5 + 7 + 9 = 5^2 = 25$