

Importance Of Number 75 In Mathematics and Other Fields:

We are celebrating year 2022 as seventy-fifth year of establishment of Gogate-Jogalekar College, Ratnagiri, also celebrating this year as 75th year of independence of our nation. So we have decided to form wallpaper-“Importance of number 75 in Mathematics and other fields.”

One of the important number in mathematics is the 75. The number 75 is the natural number following 74 and preceding 76, read as Seventy-Five. Its ordinal is Seventy-fifth.



Mathematical properties of number 75:

- Square of 75 is 5625.
Cube of 75 is 421875.
- The square root $\sqrt{75}$ is 8.660254038.
The cube root of $\sqrt[3]{75}$ is 4.217163327.
- The sum of divisors of 75 is 124.
- Prime factors of 75 are 3, 5.
- 75 is neither perfect nor prime number.
- The Roman numeral of 75 is LXXV.
- Logarithms
The natural logarithm of Number 75: $\ln 75 = \log_e 75 = 4,317488$.
The logarithm to base 10 of Number 75: $\log_{10} 75 = 1,875061$.
The Napierian logarithm of Number 75: $\log_{1/e} 75 = - 4.317488$.
- Trigonometric functions
The cosine of 75 is 0.921751.
The sine of 75 is -0.387782.
The tangent of 75 is -0.420701.
- 75 in French language is Soixante-quinze.
75 in Spanish language is Setenta y cinco.
75 in Portuguese language is Setenta e cinco.

Amazing number 75:

- **Pentagonal Pyramidal Number :**

A Pentagonal Pyramidal Number belongs to the figurate number class. It is the number of objects in a pyramid with a pentagonal base. The n th pentagonal pyramidal number is equal to sum of first n pentagonal numbers.

75 is the sum of first five pentagonal numbers, and hence it is called a pentagonal pyramidal number.

- **Self Number :**

A **self number** is a natural number that cannot be written as the sum of any other natural number n and the individual digits of n .

e.g. 21 is not a self number, because it can be written as $15 + 1 + 5$ using $n = 15$.

75 is a self number because there is no integer that added up to its own digits adds up to 75.

- **Odd Number :**

A whole number that is not able to be divided by two into two equal whole numbers. Hence 75 is a odd number.

- **Composite Number :**

A composite number is a positive integer that can be formed by multiplying two smaller positive integers. Equivalently, it is a positive integer that has at least one divisor other than one and itself.

Divisors of 75 are 1,3,5,15,25, 75. So 75 is composite number.

- **Perfect Number :**

A number is called a **perfect number** if by adding all the positive divisors of the number (except itself), the result is the number itself.

Divisors of 75 are 1, 3, 5, 15, 25, 75 and $1+3+5+15+25=49 \neq 75$. Thus, 75 is not a perfect number.

- **Deficiency Number :**

In number theory, a deficient number is a number n for which the sum of divisors of n is less than $2n$.

The 75 is deficient number because the divisors of 75 are 1, 3, 5, 15, 25, 75 and their sum is 124 and is less than $2n=2*75=150$.

- **Polite Number :**

A number is said to be polite if it can be expressed as the sum of at least two consecutive natural numbers.

The 75 is polite number because,

$$75 = 24 + 25 + 26$$

- **Unhappy number:**

To determine if 75 is a happy number or unhappy number, we square each digit in 75 and then add those numbers together.

Then we repeat the process for the result until either the result turns to 1 or we realize it will never be 1.

If it becomes a 1, then it is a happy numbers. Otherwise, it is an unhappy number.

Here is the math to make it more clear:

$$7^2 + 5^2 = 74$$

$$7^2 + 4^2 = 65$$

$$6^2 + 5^2 = 61$$

We kept doing the math above and it just started looping the same numbers and never got to 1. Since, we did not get to 1, 75 is an **Unhappy Number**.

Conversions of 75 :

- Weight conversion:

75 kilograms (kg) = 165.3 pounds (lb)

75 pounds (lb) = 34.0 kilograms (kg)

- Length conversion:

75 kilometers (km) equals to 46.603 miles (mi).

75 miles (mi) equals to 120.701 kilometers (km).

75 meters (m) equals to 246.063 feet (ft).

75 feet (ft) equals 22.860 meters (m).

75 centimeters (cm) equals to 29.5 inches (in).

75 inches (in) equals to 190.5 centimeters (cm).

- Temperature conversion:

75° Fahrenheit (°F) equals to 23.9° Celsius (°C)

75° Celsius (°C) equals to 167° Fahrenheit (°F)

- Power conversion:

75 Horsepower (hp) equals to 55.15 kilowatts (kW)

75 kilowatts (kW) equals to 101.99 horsepower (hp)

- Time conversion

75 seconds equals to 1 minute, 15 seconds

75 minutes equals to 1 hour, 15 minutes

Interesting Facts About the number 75:-

- **Asteroids:**
(75) Eurydike is asteroid number 75. It was discovered by C.H.F.Peters from Litchfield Observatory, Clinton on 9/22/1862.
- **Areas, Mountains and Surfaces:**
The total area of Hawai'i (Big Island) is 4,029 square miles (10,434 square km).Country United States (Hawaii). 75th largest island in the world.
- **Astrology:**
It is one of the lucky numbers for the zodiac sign Leo.
- **History and politics:**
United Nations Security Council Resolution number 75, 27 September 1949. Reimbursement for nations assisting in Commissions in Indonesia, India and Pakistan.
- **Motorsport and Cars:**
The Alfa Romeo 75, also known as Alfa Romeo Milano in North America is a car produced by the Italian manufacturer Alfa Romeo between the years 1985 and 1992.
- **Music:**
"74-'75" is a 1993 single from the album Ring by American band The Connells. The song became a huge hit in Europe, particularly in Sweden and Norway, where it topped the singles charts in 1995.
- **Science:**
Rhenium is the chemical element in the periodic table that has the symbol Re and atomic number 75.
- The age limit for Canadian senators
- A common name for the Canon de 75 modèle 1897, a French World War I gun.
- The department number of the city of Paris.

- The number of balls in a standard game of Bingo in the United State.
- Gregorian, Hebrew, Islamic, Persian and Buddhist year (calendar)
 - Gregorian year 75 is Buddhist year 618.
 - Buddhist year 75 is Gregorian year 468 a. C.
 - Gregorian year 75 is Islamic year -564 or -563.
 - Islamic year 75 is Gregorian year 694 or 695.
 - Gregorian year 75 is Persian year -548 or -547.
 - Persian year 75 is Gregorian 696 or 697.
 - Gregorian year 75 is Hebrew year 3835 or 3836.
 - Hebrew year 75 is Gregorian year 3685 a. C.
 - The Buddhist calendar is used in Sri Lanka, Cambodia, Laos, Thailand, and Burma. The Persian calendar is official in Iran and Afghanistan.

Representation of 75

- **Binary Number:-**

The binary number system is a number system with base 2 in which numbers are represented only by two digits, 0 and 1. The numbers formed using these two digits are termed as Binary Numbers.

e.g.

Conversion of 75 Decimal to Binary:-

Base 2

$$75/2 = 37 \quad (1)$$

$$37/2 = 18 \quad (1)$$

$$18/2 = 9 \quad (0)$$

$$9/2 = 4 \quad (1)$$

$$4/2 = 2 \quad (0)$$

$$2/2 = 1 \quad (0)$$

$$1/2 = 0 \quad (1)$$

Representation:-

$$75_{10} = 1001011_2$$

- **Ternary Number:-**

If the base value of a number system is 3, then this representation is known as a ternary representation. The digits in this system are 0,1 and 2. There is also a number system called Balanced Ternary which comprises the digits -1, 0 and +1.

e.g.

Conversion of 75 Decimal to Ternary:-

Base 3

$$75/3 = 25 \quad (0)$$

$$25/3 = 8 \quad (1)$$

$$8/3 = 2 \quad (2)$$

$$2/3 = 0 \quad (2)$$

Representation:-

$$75_{10} = 2210_3$$

- **Duodecimal Number:-**

The duodecimal system is a numeral system using twelve as its base. The number ten may be written as A , number eleven as B, and number twelve as 10.

e.g.

Conversion of 75 Decimal to Duodecimal:-

Base 12

$$75/12 = 6 \quad (3)$$

$$6/12 = 0 \quad (6)$$

Representation:

$$75_{10} = 63_{12}$$

- **Hexadecimal Number:-**

Number system with base value 16 is termed as Hexadecimal Number System. Digits from 0-9 are taken like the digits in the decimal number system but the digits from 10-15 are represented as A-F i.e. 10 is represented as A, 11 as B, 12 as C, 13 as D, 14 as E, and 15 as F.

e.g.

Conversion of 75 Decimal to Hexadecimal:-

Base 16

$$75/16 = 4 \quad (11) = B$$

$$4/16 = 0 \quad (4) = 4$$

Representation:-

$$75_{10} = 4B_{16}$$

- **Octal Number:-**

Octal Number System is one in which the base value is 8. It uses 8 digits i.e. 0-7 for creation of octal numbers. Octal numbers can be converted to Decimal value by multiplying each digit with the place value and then adding the result.

e.g.

Conversion of 75 Decimal to Octal Number System:-

Base 8

$$75/8 = 9 \quad (3)$$

$$9/8 = 1 \quad (1)$$

Representation:-

$$75_{10} = 113_8$$

Number 75 in Computer Science

Code type	Code value
ASCII	75 ASCII is character K
Unix time	Unix time 75 is equal to Thursday Jan. 1, 1970, 12:01:15 a.m. GMT
IPv4, IPv6	Number 75 internet address in dotted format v4 0.0.0.75, v6 ::4b
75 Decimal	1001011 Binary
75 Decimal	2210 Ternary
75 Decimal	113 Octal
75 Decimal	4B Hexadecimal (0x4b hex)
75 BASE64	NzU
75 MD5	d09bf41544a3365a46c9077ebb5e35c3
75 SHA1	450ddec8dd206c2e2ab1aeaaa90e85e51753b8b7

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*Thank
you*

