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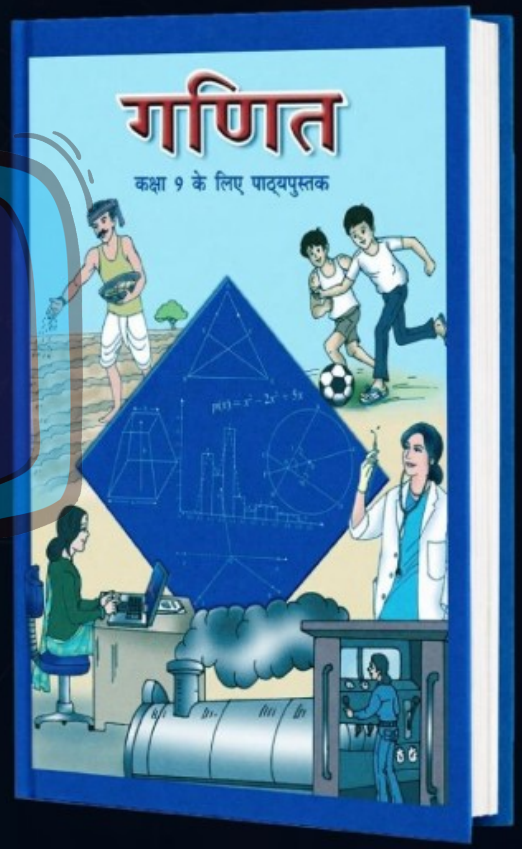

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Chapter Zero

→ प्राकृत संख्याएँ :- 1, 2, 3, ...

→ पूर्ण संख्याएँ :- 0, 1, 2, 3, ...

→ पूर्णांक :- ..., -3, -2, -1, 0, 1, 2, 3, ...

→ परिमेय संख्याएँ :- $\frac{p}{q}$, $p, q \in Z, q \neq 0$ Ex. $-\frac{5}{6}, 0, \frac{22}{7}, 100$

→ परिमेय ± परिमेय = परिमेय, परिमेय × परिमेय = परिमेय

$\frac{\text{परिमेय}}{\text{परिमेय}}$ = परिमेय या अपरिमेय

$ax+b$, $5x-7$, $-6y+11$, $-\frac{1}{2}z-7$ → एक चर वाले रैखिक व्यंजक

चतुर्भुज

1. आयत — AB = DC, AD = BC, AC = BD
2. वर्ग — AD = AB = BC = CD, AC = BD
3. समचतुर्भुज — AB = BC = CD = AD, AC ≠ BD
4. समांतर — AB = DC, AD = BC
5. समलंब — AB ∥ DC
6. पतंग — AB = AD, BC = DC

→ 1 से 20 तक वर्ग

→ 1 से 20 तक घन

Fundamental Identities

(i) $(x+y)^2 = x^2+y^2+2xy$

(ii) $(x-y)^2 = x^2+y^2-2xy$

(iii) $(x+y)(x-y) = x^2-y^2$

(iv) $(x+a)(x+b) = x^2+x(a+b)+ab$

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एक चर वाले

1. संख्या पद्धति — परिचय
2. बहुपद
3. निर्देशांक ज्यामिति
4. दो चरों वाले रैखिक समीकरण
5. यूक्लिड की ज्यामिति का परिचय
6. रेखाएँ और कोण

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7. त्रिभुज

8. चतुर्भुज

9. वृत्त

10. हीरोन का सूत्र

11. पृष्ठीय क्षेत्रफल और आयतन

12. सांख्यिकी

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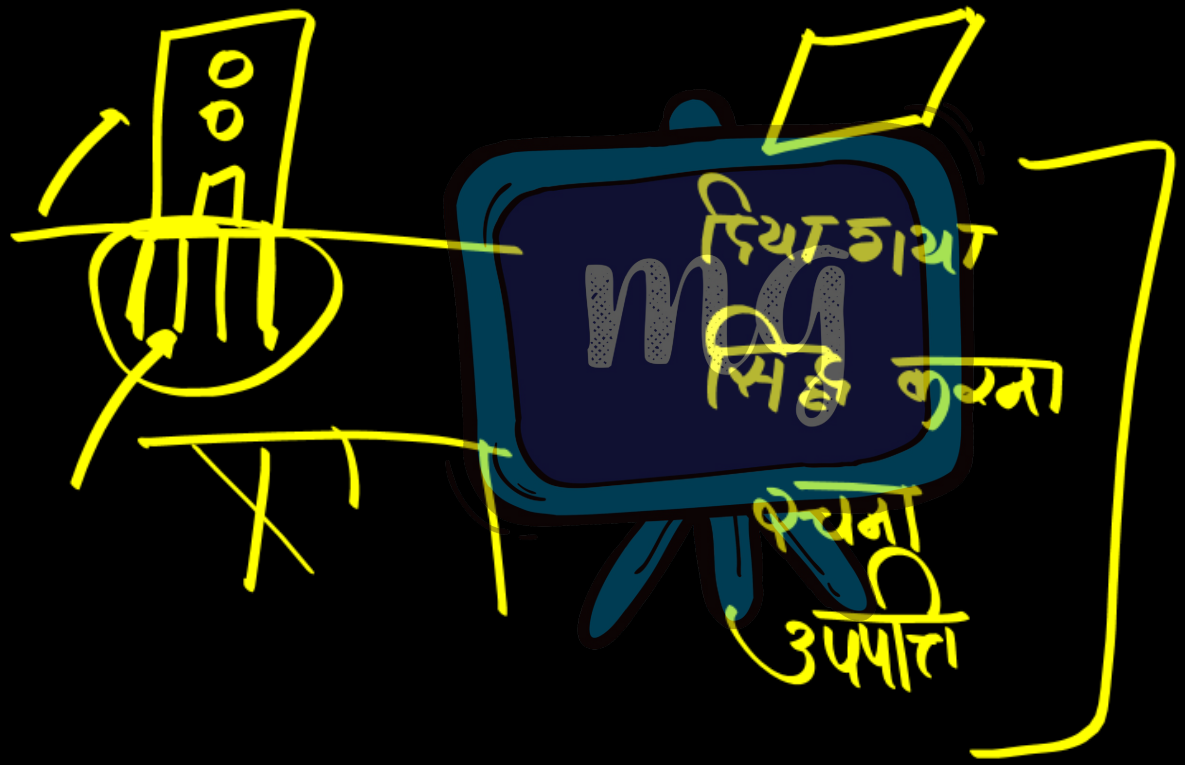

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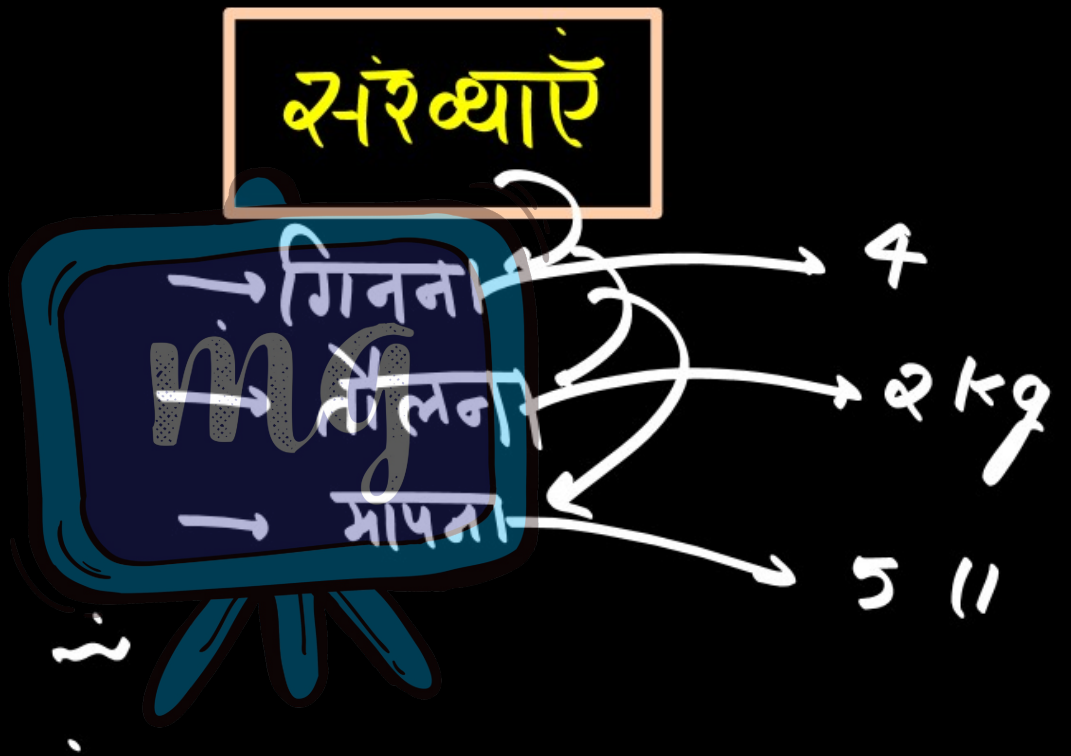

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(N)

प्राकृत :- 1, 2, 3, 4, ...

(Natural)

पूर्ण संख्या :- 0, 1, 2, 3, 4, ... N

W

0, N

(Whole Number)

(W)

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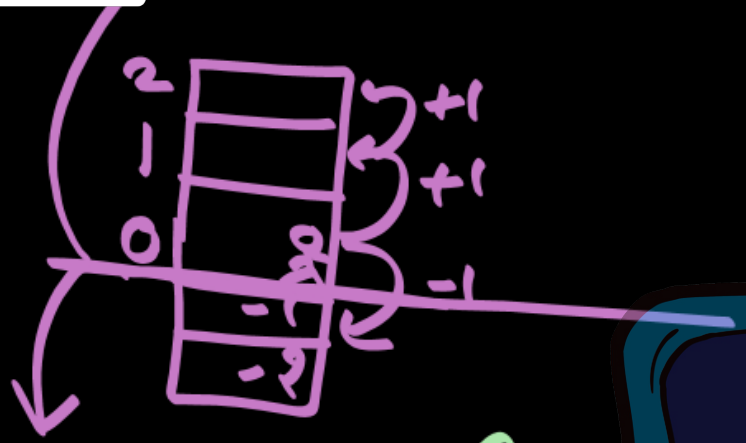

पूर्णांक (Integer)

$-\infty \ldots, -3, -2, -1, 0, 1, 2, 3, \ldots \infty$

$-1 \quad \infty$

I or Z → Zehal

मैटिन शब्द

पूर्णांक

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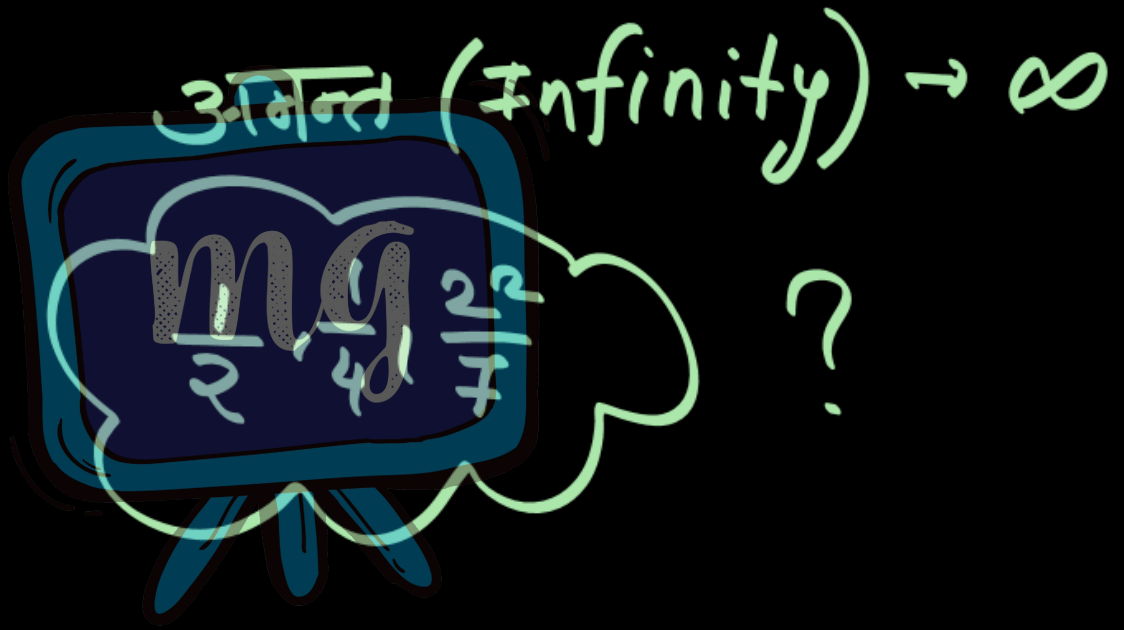

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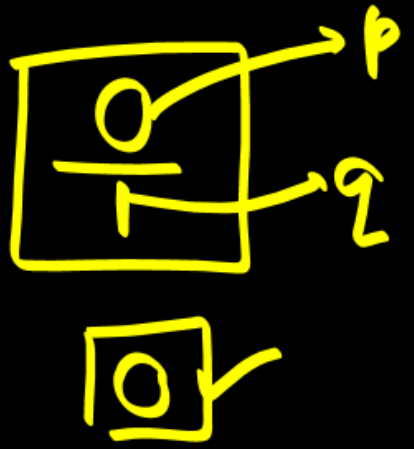
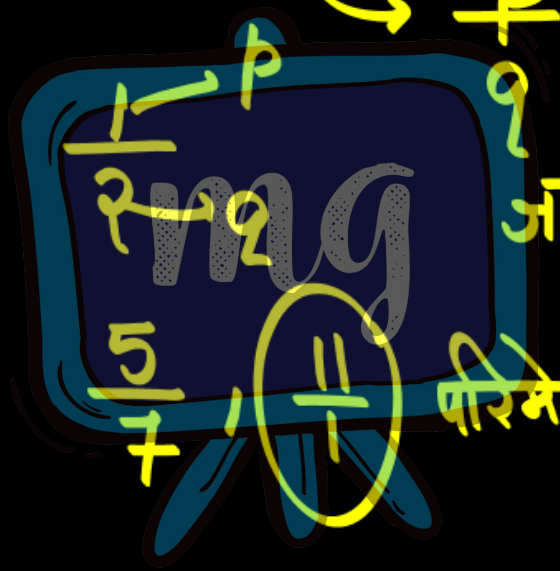
परिमेय संख्याएँ





जहाँ p व q पूर्णांक

परिमेय $q \neq 0$

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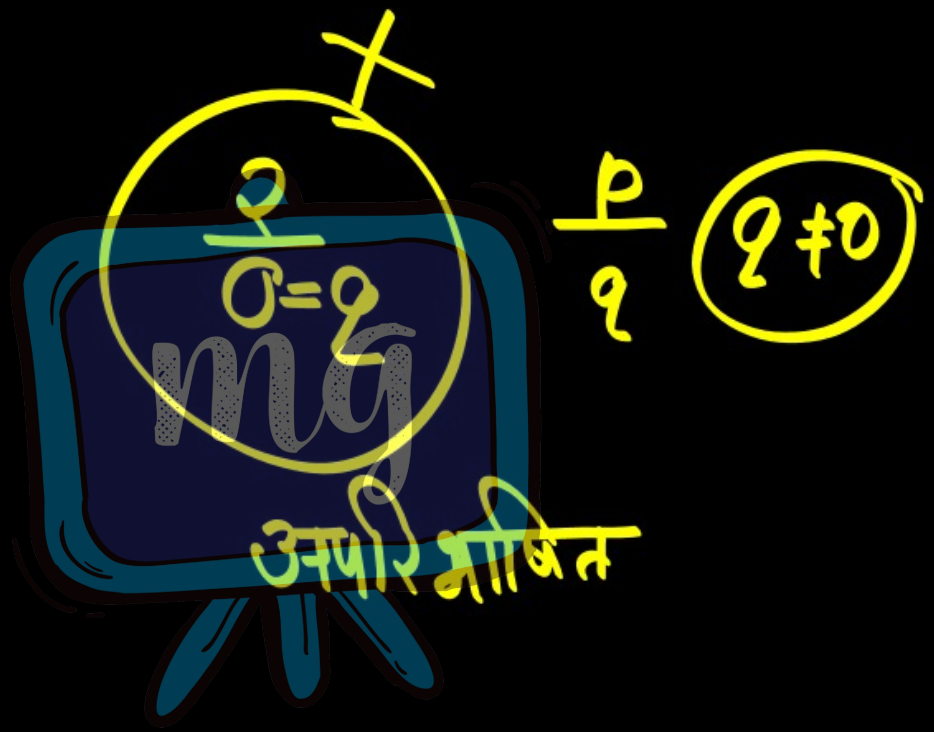

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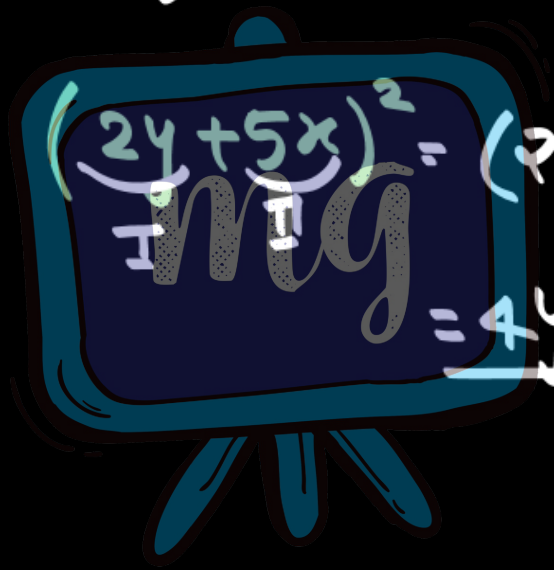
$$(I+II)^2 = I^2 + II^2 + 2III$$

Q. $(2y+5x)^2 = (2y)^2 + (5x)^2 + 2 \times 2y \times 5x$

$= 4y^2 + 25x^2 + 20xy$



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$(I-II)^2 = I^2 + II^2 - 2 I\,II$

Q. $(y-2x)^2 = y^2 + (2x)^2 - 2 \times y \times 2x$

$= y^2 + 4x^2 - 4xy$

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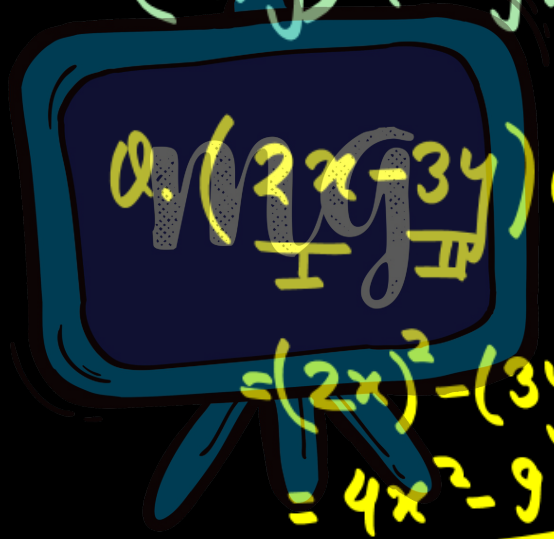
$(I+II)(I-II) = I^2 - II^2$

$(x+y)(x-y) = x^2 - y^2$



Q. $(\underset{I}{2x} - \underset{II}{3y})(\underset{I}{2x} + \underset{II}{3y})$

$= (2x)^2 - (3y)^2$

$= 4x^2 - 9y^2$

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H.W.

1. $(3x-1)^2$

2. $\left(\frac{y}{2}+2x\right)^2$

3. $(100+y)(100-y)$

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१ से २० तक वर्ग

१ से १० तक घन



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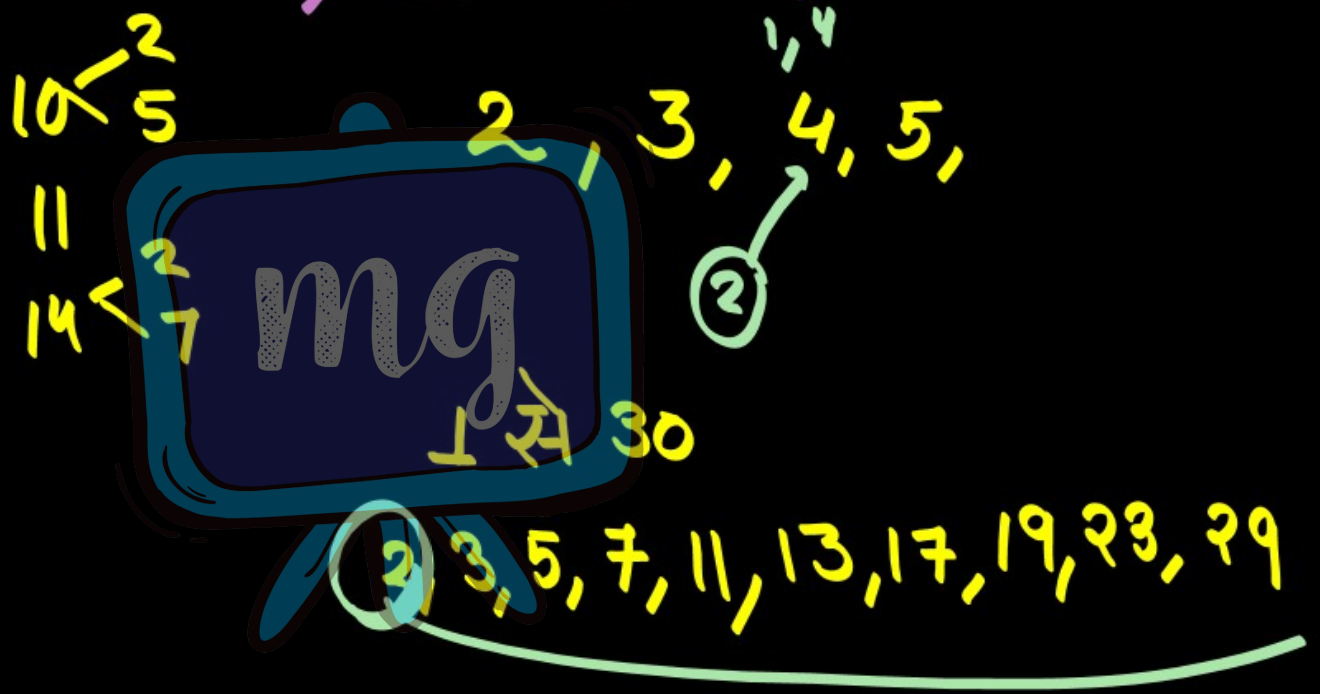
अभाज्य संख्याएँ



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