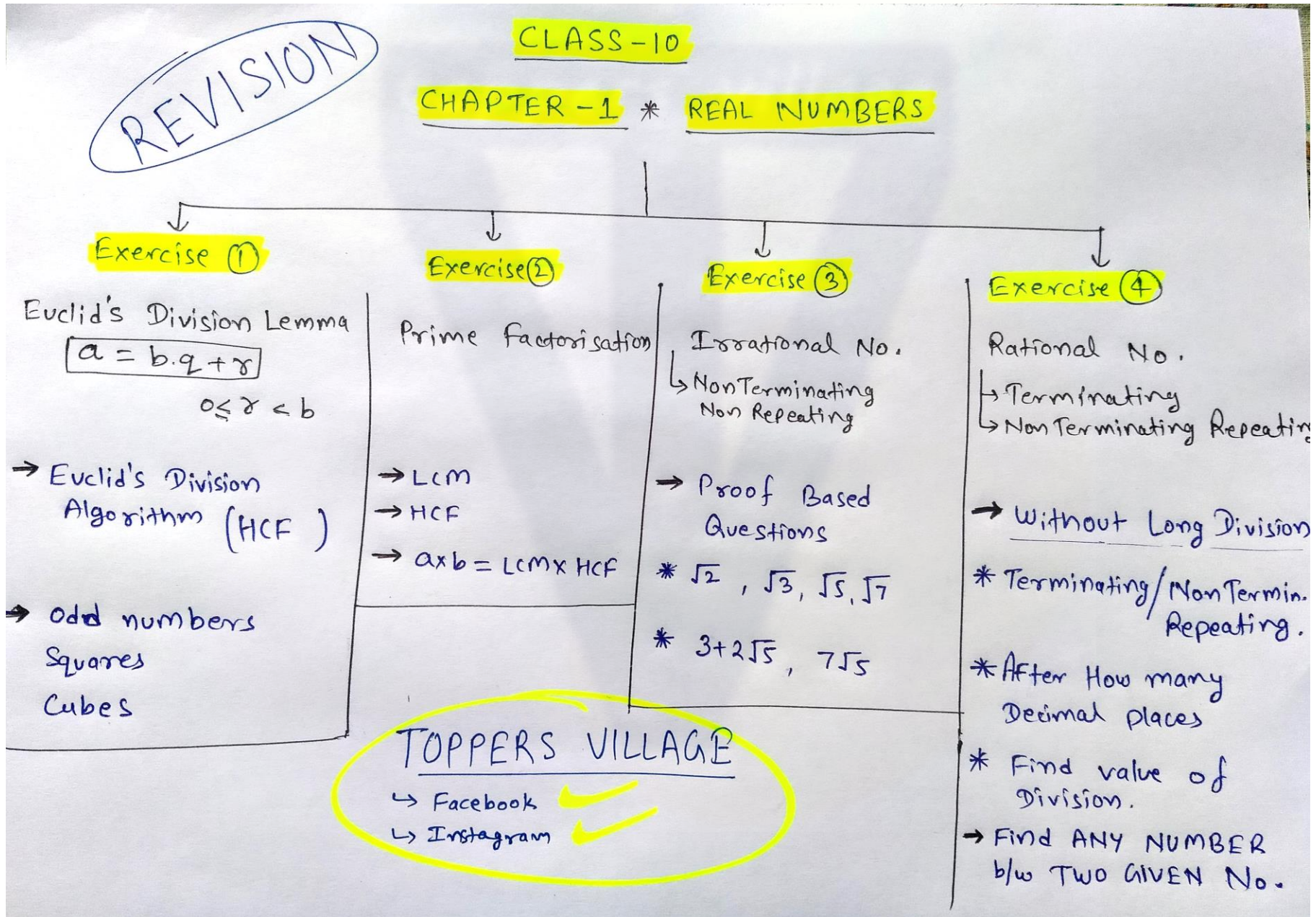


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CLASS-10

CHAPTER-2

* POLYNOMIALS

REVISION

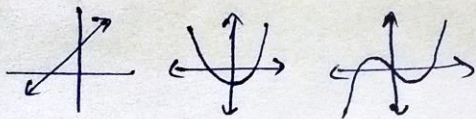
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↳ INSTA.

Exercise (1)

→ Geometrical Meaning of zeroes
(where graph cuts x-axis)

- Linear Polynomial
- Quadratic
- Cubic polynomial



Exercise (2)

→ Relation b/w Zeroes & Coefficients
In Quadratic Polynomial

$$\alpha + \beta = -\frac{b}{a}$$

$$\alpha\beta = \frac{c}{a}$$

→ New Quadratic Polynomial
 $= k[x^2 - (\alpha + \beta)x + \alpha\beta]$

- Find zeroes & verify Relation-ships.
- Form new Quadratic Polynomial.

Exercise (3)

→ Division of Polynomials

$$P(x) = g(x) \cdot q(x) + r(x)$$

$$0 \leq \text{degree } r(x) < \text{Degree } g(x)$$

→ Factor theorem

If $x = \alpha$ is zero, then $(x - \alpha)$ is a factor of Polynomial

- Divide polynomials.
- Example (9).

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CLASS - 10

CHAPTER - 3

PAIR OF LINEAR EQUATIONS IN TWO Variables.

$$a_1x + b_1y + c_1 = 0$$

$$a_2x + b_2y + c_2 = 0$$

REVISION

Exercise (3.1)

- Formation of Linear Equation
- Graph Drawing

PROBLEMS on →

- Age
- Numbers
- Speed, time
- Upstream Downstream
- Work
- Geometry (length + width)
- Angles
- Taxi Fare.
- Buy etc.

Exercise (3.2)

- Solution by Graphical method
- Conditions

$$\frac{a_1}{a_2}, \frac{b_1}{b_2}, \frac{c_1}{c_2}$$

→ Unique Solⁿ.

$$\frac{a_1}{a_2} \neq \frac{b_1}{b_2}$$

→ Infinite Solⁿ

$$\frac{a_1}{a_2} = \frac{b_1}{b_2} = \frac{c_1}{c_2}$$



→ No Solution.

$$\frac{a_1}{a_2} = \frac{b_1}{b_2} \neq \frac{c_1}{c_2}$$



Exercise (3.3)

- Substitution Method

↳ Put the value of x or y from 1st eqⁿ to another equation.

Exercise (3.4)

- Elimination Method

↳ make Same Coefficients of either x or 'y' then cut them by Adding or Subtracting

Exercise (3.5)

- Cross Multiplication Method

$$\frac{x}{| |} = \frac{y}{| |} = \frac{1}{| |}$$

Exercise (3.6)

- Reducible Equations.

Assume Complicated expression as 'u' & 'v'

Then Simplify.

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CLASS-10

CHAPTER - 4 * QUADRATIC EQUATIONS

$$ax^2 + bx + c = 0 \quad a \neq 0$$

REVISION

Exercise (4.1)

- Identify Quadratic Eqⁿ
- Formation of Quadratic (Verbal Problems)

- Age
- Rectangle
- Speed-time
- Work (water Taps Tanks)
- Numbers etc.

Exercise (4.2)

- By Factorisation
 - By splitting middle Terms
 - $a^2 - b^2 = (a+b)(a-b)$
 - common

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Exercise (4.3)

- By Completing the Square Method
 - ★ Complete Video Available
 - ★ Must Watch !!!
- Quadratic Formula (Shri Dharacharya)

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

D = Discriminant
 $D = b^2 - 4ac$

Exercise (4.4)

- Nature of Roots
 - # Real & Distinct roots $D > 0$
 - # Real & equal Roots $D = 0$
 - # No Real Roots $D < 0$

Revision of Short Notes of
Remaining chapters will be
uploaded soon...

All Useful Links:

- **YouTube Channel : Toppers Village** (Get full and free video lectures of Class 10 & 11 Maths) - <https://www.youtube.com/toppersvillage>
- **Website :** www.toppersvillage.com
- **Instagram :** <https://www.instagram.com/toppersvillage/>
- **Facebook Page:** www.facebook.com/ToppersVillage/
- **Facebook Group:** <https://www.facebook.com/groups/ToppersVillage>