

Statistics

Quick Study Guide

HOW TO

USE THIS GUIDE

HIGHLIGHTED TEXT SHOWS IMPORTANT POINTS



MARKS HIGH-FOCUS TOPICS



INDICATES EXAM TIPS



SHOWS COMMON ERRORS



GIVES QUICK TIPS

MEAN OF GROUPED DATA

Mnemonic: "AVERAGE BOSS"

- A** - Add all values
V - Values $\times$ frequency
E - Equal parts
R - Right method
A - Apply formula
G - Group data
E - Easy steps

Remember As:

CLASS MARKS:

- * Mean = $\Sigma(fx_i) / \Sigma f_i$
- * Like class average:
- * Total marks/Total students
- * Midpoint $\times$ frequency

Common Errors

- * Wrong class mark
- * Frequency missing
- * Division error
- * Step skipping

DIRECT METHOD

Mnemonic: "SEEDHA GAME"

- S** - Simple steps
E - Easy calc
E - Each class
D - Direct multiply
H - Height find
A - Add all
G - Group data
A - Apply formula
M - Multiply proper
E - Easy solve

QUICK STEPS:

TOTAL KARO

1. Find class marks
2. Multiply by frequency
3. Add all products
4. Divide by Σf

EXAMPLES:

- * x_i = Class mark
- * f_i = Frequency
- * Mean = $\Sigma(fx_i) / \Sigma f_i$

: ASSUMED MEAN METHOD

Mnemonic: "GUESS GAME"

- G** - Guess one value
U - Use easy number
E - Estimate mean
S - Subtract assumed
S - Simple calc

REMEMBER FORMULA:

MAAN LO:

- * $\bar{X} = A + \Sigma(fid) / \Sigma f$
- * Where:
- * A = Assumed mean
- * d = Deviation
- * f = Frequency

STEPS:

1. Choose middle value
2. Find deviations
3. Multiply by frequency
4. Apply formula

MODE

Mnemonic: "SABSE ZYADA"

- S** - Select highest
A - Appears most
B - Best frequency
S - See numbers
E - Easy find

- Z** - Zyada baar
Y - Yaad karo
A - Apply formula
D - Direct observe
A - Answer get

FORMULA MODAL:

- FORMULA HERO:**
- * Mode = $L + \frac{(f_1 - f_0)(h)}{(f_1 - f_0) + (f_1 - f_2)h}$
 - * Where:
 - * L = Lower limit
 - * f_1 = Modal frequency
 - * f_0 = Previous frequency
 - * f_2 = Next frequency
 - * h = Class size

MEDIAN

Mnemonic: "MIDDLE KING"

- M** - Middle value
I - Important position
D - Data arrange
D - Divide total
L - Look n/2
E - Easy find

QUICK STEPS:

BEECH WALA:

1. Find N/2 th item
 2. Locate median class
 3. Apply formula:
- * $M = L + \frac{(n/2 - cf)}{f} \times h$
 - * Where:
 - * L = Lower limit
 - * cf = Cumulative frequency
 - * f = Frequency
 - * h = Class size

OGIVE

Mnemonic: "GRAPH GURU"

- G** - Graph paper
R - Right plotting
A - Arrange data
P - Plot points
H - Height mark

- G** - Get cf
U - Upper/lower
R - Right scale
U - Use properly

REMEMBER STEPS:

PLOT KARO

1. Find cf
2. Mark points
3. Join smoothly
4. Check scale
5. Find median



EMPIRICAL FORMULA

Mnemonic: "RELATION PRO"

R
E
L
A
T
I
O
N

- Relation check
- Easy formula
- Link measures
- Apply rules
- Three measures
- Important link
- Observe values
- Note rules

REMEMBER AS

TEEN DOST

- * 3 Mean - 2 Median + Mode
- * Like three friends
- * Mean + Average
- * Median + Middle
- * Mode + Most common

QUICK REVISION CHECKLIST

Before Exam:

- ✓ Mean methods
- ✓ Mode formula
- ✓ Median steps
- ✓ Ogive drawing
- ✓ Empirical rule
- ✓ Cumulative frequency
- ✓ Graph interpretation

Scoring Tips:

1. Show all steps
2. Draw neat tables
3. Clear calculations
4. Proper graphs
5. Units mention

100%

HIGH FOCUS AREAS

1. Mean Calculation (5 marks)
2. Empirical Formula (5 marks)
3. Mode Finding (4 marks)
4. Median Steps (4 marks)
5. Ogive (4 marks)

QUICK FORMULAS

Mnemonic: "SOLVE KARO"

S
O
L
V
E
K
A
R
O

- See data type
- Organize table
- List frequency
- Verify class
- Equal intervals
- Keep steps clear
- All calculations
- Right method
- Organize work

QUICK STEPS:

1. Arrange data
2. Choose method
3. Apply formula
4. Verify answer
5. Check units

SPECIAL POINTS:

- * Class interval should be equal
- * Frequency total important
- * Cumulative frequency check
- * Graph scale proper
- * Steps must be shown

GOOD
LUCK!

