

HOW TO TEACH MATH MCQs

M. MAQSOOD ALI

For Class XII

$$4x^2 + 9y^2 = 36$$

a



b



c



d



BOOK - 2

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BOOK-2

HOW TO TEACH MATH MCQs

For Class XII

by

M. Maqsood Ali

Assistant Professor of Mathematics

Govt. Degree Sci. & Comm.

College Landhi Korangi #6, Karachi.

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AUTHOR

M. MAQSOOD ALI

ASSISTANT PROFESSOR OF MATHEMATICS



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Preface

It is not only a book but also new research on Math MCQs. The procedure to solve Math MCQs is introduced first time for the students of intermediate classes. The book covers all the topics of the prescribed syllabus of Karachi Board for intermediate classes. This book helps a teacher not only to teach complicated mathematics topics but also how to teach them.

This is a comprehensive book which covers all aspects of Math MCQs for class XII. Each topic of the book is explained in detail first and then appropriate examples are solved by new method. At the end of each topic a plenty of unsolved problems are given for the practice. So every topic consists of Explanation, Formulas, Shortcuts, Solved MCQs and Unsolved MCQs.

M. Maqsood Ali

READ IT FIRST

This book illustrates the thinking process of a student solving MCQs of mathematics.

The following four steps are necessary for a student to find out the correct answer to a Math MCQ:

Step-1:

The main part of the question is written in the rectangle presented with dashes.

Main Part Of The Question

It is not necessary for the students to write the lines in the above rectangle on the sheet. These lines help to solve the question.

Step-2:

The formula to be used to solve the MCQ is written in the following bold rectangle.

Formula

Students do not need to write these lines on the sheet.

Step-3:

The lines which a student will not write on the sheet and only solve in his mind are written in the following shape of rectangle.

Thinking Process

Step-4:

All the lines not written in the rectangles must be solved on the sheet.

All Steps

Main Part Of The Question

Formula

Thinking Process

Working on paper.

Example

MCQ :

What are the vertices of the ellipse $9x^2 + 25y^2 = 225$?

- (a) $(0, \pm 3)$ (b) $(\pm 3, 0)$ (c) $(\pm 5, 0)$ (d) $(0, \pm 5)$

Solution:

$$9x^2 + 25y^2 = 225$$

Equation of ellipse

$$b^2x^2 + a^2y^2 = a^2b^2$$

Center at origin and major axis is along x-axis $\{\because 9 < 25$

$$a^2 = 25 \quad \{\because a^2 = \frac{225}{9} = 25$$

$$a = 5$$

Vertices at $(\pm 5, 0)$

The answer is (c).