

# MATHEMATICS



## **Student Textbook**

## Author and Editor:

Abera Temesgen (B.SC.) B.Janaki Mohan (M.A)

### **Evaluators:**

Abdella Mohe Meneberu Kebede



Federal Democratic Republic of Ethiopia Ministry of Education



#### Acknowledgements

The redesign, printing and distribution of this student textbook has been funded through the General Education Quality Improvement Project (GEQIP), which aims to improve the quality of education for Grades 1–12 students in government schools throughout Ethiopia.

The Federal Democratic Republic of Ethiopia received funding for GEQIP through credit/financing from the International Development Associations (IDA), the Fast Track Initiative Catalytic Fund (FTI CF) and other development partners – Finland, Italian Development Cooperation, the Netherlands and UK aid from the Department for International Development (DFID).

The Ministry of Education wishes to thank the many individuals, groups and other bodies involved – directly and indirectly – in publishing the textbook and accompanying teacher guide.

Every effort has been made to trace the copyright holders of the images and we apologise in advance for any unintentional omission. We would be pleased to insert the appropriate acknowledgement in any subsequent edition of this publication.

© Federal Democratic Republic of Ethiopia, Ministry of Education First edition, 2003(E.C.)

ISBN: 978-99944-2-213-5

Developed, printed and distributed for the Federal Democratic Republic of Ethiopia, Ministry of Education by:

Al Ghurair Printing and Publishing House CO. (LLC) PO Box 5613 Dubai U.A.E.

#### In collaboration with

Kuraz International Publisher P.L.C P.O. Box 100767 Addis Ababa Ethiopia

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means (including electronic, mechanical, photocopying, recording or otherwise) either prior written permission of the copyright owner or a license permitting restricted copying in Ethiopia by the Federal Democratic Republic of Ethiopia, Federal Negarit Gazeta ,Proclamation No. 410/2004 Copyright and Neighbouring Rights Protection Proclamation, 10<sup>th</sup> year, No. 55, Addis Ababa, 19 July 2004.

#### Disclaimer

Every effort has been made to trace the copyright owners of material used in this document. We apologise in advance for any unintentional omissions. We would be pleased to insert the appropriate acknowledgement in any future edition.

# **Table of Contents**

UNIT	<b>1:</b> WHOLE NUMBERS AND THE FOUR OPERATIONS
	nole Numbers Greater than ,000,0002
1.2 Op	eration on Whole Numbers15
Unit	Summary
Revie	ew Exercise
UNIT	2: WORKING WITH VARIABLES
2.1 Al	gebraic Terms and Expressions
2.2 Eq	uations and Inequalities
Unit	Summary
	ew Exercise68
UNIT	3: FRACTIONS, DECIMALS AND THE FOUR
T	OPERATIONS pes of Fractions
3.1 IY	rcentage as Fractions
	omparison and Ordering of Fractions 87
3.4 Op	erations on Fractions
<b>-</b>	erations on Decimals106
Unit	Summary117
Revi	ew Exercise

## UNIT 4: DATA HANDLING

•	nstruction and of Bar Graphs125 f Numbers140
-	
<b>Review Exercise</b>	
UNIT 5: GEOMETRIC	FIGURES AND MEASUREMENT
5.1. Lines	
5.2. Angles and Me	asurement of Angles 157
5.3. Classification	of Triangles163
5.4. Lines of Symm	etry172
5.5. Measurement	
Unit Summary	
Review Exercise	
	$(0)^{*}$