

**QUESTION 9**

In the diagram,  $ABCD$  is a parallelogram with  $AB = 14$  units.  $AD$  is produced to  $E$  such that  $AD : DE = 4 : 3$ .  $EB$  intersects  $DC$  in  $F$ .  $EB = 21$  units.



- 9.1 Calculate, with reasons, the length of  $FB$ . (3)
- 9.2 Prove, with reasons, that  $\triangle EDF \parallel \triangle EAB$ . (3)
- 9.3 Calculate, with reasons, the length of  $FC$ . (3)
- [9]**

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# 2013 Maths Grade Paper November

**Emilie Sanchez**



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**Cambridge IGCSE® Mathematics Core and Extended Coursebook** Karen Morrison, Nick Hamshaw, 2018-03-15 This Cambridge IGCSE Mathematics Core and Extended series has been authored to meet the requirements of the Cambridge IGCSE Mathematics syllabus 0580 0980 for first examination from 2020 This second edition of Cambridge IGCSE Mathematics Core and Extended Coursebook offers complete coverage of the Cambridge IGCSE Mathematics 0580 0980 syllabus It contains detailed explanations and clear worked examples followed by practice exercises to allow students to consolidate the required mathematical skills The coursebook offers opportunities for checking prior knowledge before starting a new chapter and testing knowledge with end of chapter and exam practice exercises Core and Extended materials are presented within the same book and are clearly signposted to allow students to see the range of mathematics required for study at this level Answers are at the back of the book

**South African national bibliography**, 1999 Classified list with author and title index

**A Unique Geological Heritage: Meerschaum** Alp Baran Erkul, 2022-12-27 A Unique Geological Heritage Meerschaum Alp Baran Erkul ISBN 978 605 06802 3 2 Kitab n t m geliri novasyon in E itim Vakf na ba lanmaktad r Elde edilen gelir ile entelekt el seviyesi y ksek gen lerin e itimi ve start up lar desteklenmektedir Ayr ca e itlik ve kapsay c l k g zetilmektedir

**Future Earth** Diana Dalbotten, Gillian Roehrig, Patrick Hamilton, 2014-06-23 Earth now is dominated by both biogeophysical and anthropogenic processes as represented in these two images from a simulation of aerosols Dust red from the Sahara sweeps west across the Atlantic Ocean Sea salt blue rises into the atmosphere from winds over the North Atlantic and from a tropical cyclone in the Indian Ocean Organic and black carbon green from biomass burning is notable over the Amazon and Southeast Asia Plumes of sulfate white from fossil fuel burning are particularly prominent over northeastern North America and East Asia If present trends of dust emissions and fossil fuel burning continues in what we call the Anthropocene epoch then we could experience high atmospheric CO2 levels leading to unusual warming rarely experienced in Earth s history This book focuses on human influences on land ocean and the atmosphere to determine if human activities are operating within or beyond the safe zones of our planet s biological chemical and physical systems Volume highlights include Assessment of civic understanding of Earth and its future Understanding the role of undergraduate geoscience research and community driven research on the Anthropocene Effective communication of science to a broader audience that would include the public the K 12 science community or populations underrepresented in the sciences Public outreach on climate education geoscience alliance and scientific reasoning Future Earth is a valuable practical guide for scientists from all disciplines including geoscientists museum curators science educators and public policy makers

**Assessing the Nation's Report Card** Chester E. Finn, 2022-08-23 Assessing the Nation s Report Card examines the history of the National Assessment of Educational Progress NAEP and outlines plans for improving and modernizing the organization Educational policy analyst Chester E Finn Jr imparts a rare inside analysis of the evolution of the NAEP program

at key moments in its history and provides a firsthand perspective of crucial decisions and core goals that have helped shape it. The result is a revealing survey of the US's most influential source of data on K-12 achievement. *Assessing the Nation's Report Card* offers readers an in-depth understanding and appreciation of NAEP as well as an examination of its shortcomings, its controversies, and its current issues. The book explores why NAEP is considered the gold standard of educational assessments yet is much lesser known than other types of standardized testing. Finn underscores the promise of applying the results in addressing achievement gaps, boosting federal accountability, and driving education reform and policy. He also discloses how the data are collected and what the results can and cannot tell us. For more than 50 years, this ambitious federal testing program has informed the decisions of policy makers and educational leaders as they advocate for educational improvements in the US. Acknowledging the nation's evolving need for actionable information about students and schools, Finn provides an assured and rare overview of the existing program and proposes possibilities for the future.

**Global Action on School Library Guidelines** Barbara A. Schultz-Jones, Dianne Oberg, 2015-06-16 This book celebrates the new IFLA School Library Guidelines and shows how the Guidelines can be used in improving school library services. Each chapter describes innovative initiatives for developing, implementing, and promoting school library guidelines. The book provides inspiration and guidance for the creation of national school library standards and for the development and use of standards and guidelines to change school library practice, to define the teaching role of school librarians, to guide the initial preparation of school librarians, and to advocate for school library services. Contributors to the book come from around the world: Australia, Canada, Ethiopia, France, Malaysia, Norway, Poland, Portugal, Spain, Sweden, and the United States. Their work illustrates the shared commitment of school librarians around the world to teaching and learning for all as envisioned in the IFLA UNESCO School Library Manifesto.

**Effectiveness of teachers' guides in the Global South** Benjamin Piper, Yasmin Sitabkhan, Jessica Mejia, Kellie Betts, 2018-05-10 This report presents the results of RTI International Education's study on teachers' guides across 13 countries and 19 projects. Using quantitative and qualitative methods, we examine how teachers' guides across the projects differ and find substantial variation in the design and structure of the documents. We develop a scripting index so that the scripting levels of the guides can be compared across projects. The impact results of the programs that use teachers' guides show significant impacts on learning outcomes associated with approximately an additional half year of learning, showing that structured teachers' guides contribute to improved learning outcomes. During observations, we find that teachers make a variety of changes in their classroom instruction from how the guides are written, showing that the utilization of structured teachers' guides does not create robotic teachers unable to use their own professional skills to teach children. Unfortunately, many changes that teachers make reduce the amount of group work and interactivity that was described in the guides, suggesting that programs should encourage teachers to more heavily utilize the instructional routines designed in the guide. The report includes a set of research-based guidelines that material developers

can use to develop teachers guides that will support effective instructional practices and help improve learning outcomes The key takeaway from the report is that structured teachers guides improve learning outcomes but that overly scripted teachers guides are somewhat less effective than simplified teachers guides that give specific guidance to the teacher but are not written word for word for each lesson in the guide

*Assessing Academic Literacy in a Multilingual Society* Albert Weideman, John Read, Theo du Plessis, 2020-11-02 South African universities face major challenges in meeting the needs of their students in the area of academic language and literacy The dominant medium of instruction in the universities is English and to a much lesser extent Afrikaans but only a minority of the national population are native speakers of these languages Nine other languages can be media of instruction in schools which makes the transition to tertiary education difficult enough in itself for students from these schools The focus of this book is on procedures for assessing the academic language and literacy levels and needs of students not in order to exclude students from higher education but rather to identify those who would benefit from further development of their ability in order to undertake their degree studies successfully The volume also aims to bring the innovative solutions designed by South African educators to a wider international audience

**Yearbook of International Organizations 2013-2014 (Volumes 1A-1B)** Union of International Associations, 2013-06-21 Volume 1 A and B covers international organizations throughout the world comprising their aims activities and events

Science Abstracts ,1965 Parliamentary Debates (Hansard). Great Britain. Parliament. House of Commons, 2013

**Journal for Research in Mathematics Education** ,2015 **Australian Education Index** ,1980 Journal of the Senate of the State of Indiana Indiana. General Assembly. Senate, 2013 **National Union Catalog of Manuscript Collections** ,1965 Based on reports from American repositories of manuscripts **Journal of the House of Representatives of the State of Indiana at Their ... Session** Indiana. General Assembly. House of Representatives, 2013 **Journal of the Senate of the State of Indiana** ,2012 *The College Handbook* College Entrance Examination Board, 1983 Presents information on 4 year colleges and universities and 2 year community colleges and technical schools

**InCider** ,1989 *Who's who in America* ,1956

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web the study of reaction rates will lead you into the study of chemical equilibrium in this semester you will also study electrochemistry from batteries to electroplating and you will learn about acids bases and salts unit 15 is a brief study of the

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web equilibrium moles hscn  $2.00 \times 10^{-5}$  mol  $3.00 \times 10^{-6}$  mol  $1.70 \times 10^{-5}$  mol hscn knowing the number of moles of  $Fe^{3+}$  and hscn present in the equilibrium mixture and the volume of the mixture we can easily find the concentrations of those two species mol  $Fe^{3+}$   $1.70 \times 10^{-5}$  mol  $Fe^{3+}$   $8.50 \times 10^{-4}$  m

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