

**UNITED KINGDOM
MATHEMATICS TRUST**

REPORT AND FINANCIAL
STATEMENTS

FOR THE YEAR ENDED

31 JULY 2004



Company no 3271283
Charity no 1059125

UNITED KINGDOM MATHEMATICS TRUST

REPORT AND FINANCIAL STATEMENTS

For the year ended 31 July 2004

Company registration number: 3271283

Registered Charity number: 1059125

Registered office: School of Mathematics
University of Leeds
LEEDS
LS2 9JT

Trustees: Professor J Brindley
Sir A P Budd
Dr K Chicot
Mr H Groves
Mr T J Heard
Miss S G Jameson
Dr A K Jobbings
Mrs P M King
Mr N J Lord
Professor A C Mc Bride
Mr S J Mulligan
Dr P M Neumann
Mr W P Richardson
Professor J C Robson
Professor B W Silverman
Dr A B Slomson
Dr G C Smith
Dr W B Stewart

Secretary: Dr R W Bray

Bankers: Lloyds TSB Bank plc
4 West Street
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Hampshire
PO9 1PE

Lloyds TSB Bank plc
6/7 Park Row
LEEDS
LS1 1NX

Auditors: Grant Thornton UK LLP
Registered Auditors
Chartered Accountants
1 Westminster Way
OXFORD
OX2 0PZ

UNITED KINGDOM MATHEMATICS TRUST

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CONSTITUTION OF THE TRUST

The Trust was incorporated on 30 October 1996. It is a company limited by guarantee, registration number 3271283, and is registered with the Charity Commission as Charity Number 1059125. Its registered address is The Maths Challenges Office, School of Mathematics, University of Leeds, Leeds LS2 9JT. The governing document is the Memorandum and Articles of Association.

The Trustees of the Trust are also the Trustees of the charity for Companies Act Purposes

The governing body of the Trust is its Council, and its Trustees are precisely the members of the Council.

Under Article 1.1 of the constitution, The Royal Institution of Great Britain and The Mathematical Association are Participating Bodies, and the Association of Teachers of Mathematics, the Edinburgh Mathematical Society, The Institute of Mathematics and Its Applications, the London Mathematical Society and The Royal Society are Supporting Bodies. The Royal Institution is also the Patron of the Trust.

MAIN OBJECTS

The Trust is established to advance the education of children and young people in mathematics, in particular by organising and running mathematics competitions.

MEMBERSHIP

The Trustees during the period covered by this Report were:

Professor J Brindley
Sir A P Budd (appointed 7 April 2004)
Dr K Chicot (appointed 12 July 2004)
Mr H Groves
Mr T J Heard
Miss S G Jameson
Dr A K Jobbings (*Vice-Chairman*)
Mrs P M King
Mr N J Lord
Professor A C McBride
Mr S J Mulligan (appointed 7 April 2004)
Dr P M Neumann (*Chairman to 7 April 2004*)
Mr W P Richardson
Professor J C Robson
Professor B W Silverman, FRS (appointed 21 July 2004) (*Chairman from 21 July 2004*)
Dr A B Slomson (*Vice-Chairman*)
Dr G C Smith
Dr W B Stewart (*Treasurer*)
Dr R W Bray (retired 12 July 2004) (*Secretary*)

The members of the Trust include present and former Trustees, namely those listed above plus Mrs M T Fyfe, Dr A D Gardiner, Dr I B Leader, Mr D J Orton, Mr R C Smart and Mr P A J Thomas.

The following are also members: The Royal Institution, The Mathematical Association, Mr D F Archer, Mr R M Atkins, Ms C Chisholm, Dr D J Collins, Mr C Dixon, Miss P M Hunt, Mrs J Lewis, Mr M L Perkins, Miss J S Ramsden and Mr A L Voice. Ms H J Macklin and Dr B J Wilson stood down during the year.

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MEETINGS

The 23rd to the 25th meetings of Council were held at the London Mathematical Society's De Morgan House on 22 October 2003, at The Royal Institution on 7 April 2004 and at De Morgan House on 21 July 2004. Under the provision of Article 56 one resolution, dated 15 March 2004, was agreed by Council outside a meeting.

The seventh Annual General Meeting of the Trust was held at The Royal Institution on 7 April 2004.

STRUCTURE OF THE UKMT

The Trust has five 'subtrusts' ('Represented Branches' in the Articles). Each of these subtrusts is in charge of one of the spheres of UKMT activity; each has its own membership and its own financial arrangements subordinate to those of the main trust. These subtrusts are as follows:

- The Junior and Intermediate Challenges Subtrust (JICS), whose major responsibility is the running of the mass entry mathematics challenges for school pupils aged between 12 and 16 approximately;
- The Junior Olympiad Subtrust (JOS), which runs the more advanced, more specialised competitions for school pupils aged between 12 and 16 approximately;
- The Senior Challenge Subtrust (SCS), which runs the mass entry challenge aimed mainly at school pupils aged 16 or over;
- The British Mathematical Olympiad Subtrust (BMOS), which runs the selective Olympiad activities for school pupils aged 16 or over, and selective training for school pupils aged 12 or over.
- The Team Maths Challenge Subtrust (TMCS), which runs the mass entry team mathematics challenge for school pupils aged between 12 and 14 approximately.

The TMCS was elevated from a Branch to a Represented Branch by Council on 21 July 2004.

STAFF

Ms Angela Gould is employed by the Trust as its Executive Director. The Trust and the University of Leeds are the joint employers, under the terms of a Joint Employment Agreement dated 13 May 2003, of Mrs Rachel Greenhalgh (*née* Airey) and Ms Heather Macklin, who provide the bulk of the administrative support for the work of the Trust through the Maths Challenges Office, assisted by a team of part-time staff.

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JUNIOR AND INTERMEDIATE CHALLENGES SUBTRUST (JICS)

The membership of the JICS was:

Professor J Brindley (University of Leeds, *Chair*),
Dr A B Slomson (University of Leeds, *Secretary and Treasurer*),
Mr H Groves (Royal Grammar School, Worcester),
Dr A K Jobbings (Shipley),
Professor J C Robson (University of Leeds).

Following a relative lull in 2002-3, growth rates in both the Intermediate and Junior Challenges picked up in 2003-4 to levels that we hope will be sustained in at least the immediate future.

The Intermediate Mathematics Challenge was held on Thursday, 5 February 2004. The number of entries rose by 6.7% (*cf.* 3.6% in 2003) to 220,930 and the number of participating schools by 4.1% (*cf.* 1.7%) to 2,840. The number of scripts returned and processed rose by 8.4% (*cf.* 3.6%) to 181,381. The IMC day went well with no problems reported. Callers said that their pupils had enjoyed the Challenge although some suspected that it was slightly harder than last year. The average score was 37.4, down from 43.2 in 2003, and certificate thresholds were (again) somewhat lower than in the previous year at 68 (for gold), 51 (for silver) and 40 (for bronze). Despite one of the optical mark readers crashing and the system proving troublesome coping with enormous amounts of data, results were processed and posted on time. The new procedure of despatching the results first, followed later by the IMOK papers to qualifying schools, worked smoothly. Several schools mislaid their results sheets and requested reprints, but there were very few queries asking for marks to be checked (none resulted in adjustments) or about lost scripts.

The Junior Mathematics Challenge was held on Tuesday, 27 April 2004. The number of entries rose by 6.9% (3.7% in 2003) to 265,070 and the number of participating schools by 5.3% (1.1%) to 3,461. This was the first time more than a quarter million entries had been received for one of the challenges. The number of scripts processed rose by 7.3% (2.4%) to 227,410. The average score rose from 41.1 to 43.7 and the bronze and silver certificate thresholds were adjusted slightly higher to 47 and 60 respectively, with the gold remaining at 75. The JMC day and the subsequent processing all went well and schools received their result before the half term holiday.

The Subtrust continued with its policy of contacting schools in cases of 'twins' – scripts which showed abnormally high correlations in their answers – but the number of such incidences was modest.

Maths Challenges Office

The role of the MCO has once again developed and expanded. The number of participants in the Challenges continued its upward trend with substantial growth particularly in the Junior and Intermediate, albeit with a more modest increase in the senior entries. More students were invited to take part in the JOS events (*see next section*), which the MCO also services.

The Office's involvement with BMOS has expanded as it provided the administration for the BMO1 as well as the BMO2 competitions, and helped with the invitations for the Trinity and Bath training courses. It also continued to assist with the administration for the mentoring schemes and the National Maths Summer School.

The UKMT website was revised earlier in the year to include information about some of the more recent events such as the Team Challenge and mentoring schemes, and is updated regularly. The Office has also started to update the software for processing challenge results from Dbase into Access; this is a substantial project that will take some time to complete.

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The Trust is very grateful to the Packing Room staff for continuing to provide a high quality of service, and to the volunteers who have helped in many facets of the MCO's work. But, as ever, the Trust is hugely in debt to Rachel Greenhalgh and Heather Macklin for providing the core administration on which the Trust is wholly dependant. We are especially grateful to them for their continued enthusiasm for the work of the Trust and for so willingly taking on ever more tasks to ensure the successful growth of its activities.

JUNIOR OLYMPIAD SUBTRUST (JOS)

The membership of the JOS was:

Professor J C Robson (University of Leeds, *Chair*),
Miss J S Ramsden (Amersham, *Secretary*),
Mr A L Voice (St Christopher's School, Hove, *Treasurer*),
Miss K Chisholm (Hutchesons' Grammar School, Glasgow) (co-opted),
Mr H Groves (Royal Grammar School, Worcester) (co-opted),
Dr A K Jobbings (Shipley),
Mr W P Richardson (Elgin).

On the whole, this was a year of consolidation and improvement for the subtrust. Last year, an entirely new suite of competitions was introduced and, simultaneously, there was an extension in the provision of Kangaroo papers. Combined, these are now termed the Intermediate Mathematical Olympiad and Kangaroo (IMOK). The first running of this suite was eminently successful; but, of course, experience suggested some alterations. These were duly put into practice this year with a positive outcome.

Individual responsibilities have remained the same as last year. Jenny Ramsden and Alex Voice continue as Secretary and Treasurer to JOS; Bill Richardson has continued to organise the JMO; Katy Chisholm and Alex Voice share responsibility for the Kangaroo papers; and Andrew Jobbings, with help from Jenny Ramsden, runs the Olympiad papers. Howard Groves and his problems group provided the JMO paper and Andrew Jobbings and a new problems group provided the Olympiad papers. The Leeds office coped completely successfully with yet another increase in burden and JOS is grateful to Rachel Greenhalgh and Heather Macklin for their considerable commitment and friendly help. Thanks are due to all of those mentioned above and to all the other individuals involved in this Subtrust's work.

JMO

The event went smoothly on a date that caused no problems at the time (but it did put pressure on giving feedback before schools broke up). The marking weekend went well, with a good supply of markers. Overall, the paper was found to be of a similar standard to the one in 2003. A few more medals were awarded: 21 Gold, 54 Silver and 60 Bronze. The medals were of the new design. The book "How long is a piece of string" was sent to about fifty candidates.

EUROPEAN KANGAROO

Following the introduction of the three-tiered Kangaroo Competition in 2003 we increased the total entry to 4,717 spread across the three year groups. This has proved to be very successful and has allowed more pupils than before to participate in a follow-up round.

Internationally, the Kangaroo competitions continue to expand both in terms of the number of countries involved and in terms of the number of pupils taking part. There are a growing number of Kangaroo related activities around Europe. November 2003 saw three of our members, Alex Voice, Rachel Greenhalgh and Paul Murray, attend the annual Kangaroo conference in Paris.

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INTERMEDIATE MATHEMATICAL OLYMPIAD

1,484 pupils were invited to take one of this year's three IMOK Olympiad papers, over 200 more than in 2003. The take-up was high and the outcome good, justifying the decision to invite more. After consultation it had also been decided to dispense with Section A and provide papers containing only six 'written answer' questions, ensuring that one or two more accessible problems were included. The ingenuity and expertise of the Problems Group were essential, both in fulfilling this aim and in enabling the overall success.

23 volunteers, ably led by Tony Gardiner, Patricia King and Gerry Leversha, assisted at the marking weekend and carried out the work efficiently and with good humour. All aspects of the administration of the competition went smoothly.

Book prizes were awarded to 146 candidates and all entrants received a certificate of Distinction, Merit or Participation. Results and markers' comments were delivered to schools in good time. All schools and entrants received a copy of the IMOK solutions booklet.

SENIOR CHALLENGE SUBTRUST (SCS)

The membership of the SCS was:

Mr W P Richardson (Elgin);
Mrs P M King (Benenden School, Kent, *Secretary & Treasurer*);
Mr D F Archer (Bedales School, Petersfield);
Mr C Dixon (Newcastle).
(One vacancy)

The Senior Mathematical Challenge was held on Tuesday, 11 November 2003 and went well. There were no problems reported.

Once again, there was an increase in the entries and participation. Entry statistics are as follows (2002 figures in brackets):

Entries	60,620	(60,400)
Schools	1,581	(1,573)
Scripts received	43,135	(40,872)
Centres returning scripts	1,525	(1,440)

The Challenge was easier than in 2002 but still provided a worthwhile exercise. It is hoped that this standard will be maintained. Certificate boundaries for gold, silver and bronze were adjusted to 87, 72, 61 (70, 57, 47) respectively.

As in 2002, there were very few requests to hold the event other than on the stipulated day. These were all refused.

The smooth running of the challenge is a tribute to the hard work of those involved – in particular to Howard Groves (Chair of the Problems Group) and to Rachel Greenhalgh and Heather Macklin in the Maths Challenges Office.

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BRITISH MATHEMATICAL OLYMPIAD SUBTRUST (BMOS)

The membership of the BMOS was:

Professor A C McBride (University of Strathclyde, *Chair*)

Mrs P M King (Benenden School, Kent, *Secretary*)

Dr D J Collins (Queen Mary, University of London, *Treasurer*)

Dr G C Smith (University of Bath, *UK IMO Team Leader*)

Mr R M Atkins (Oundle School, *BMO Organiser, Director of Mentoring*)

The 26th Annual International Mathematical Olympiad Lecture and Medal Ceremony were held at the Royal Society on 29 September 2003. Professor Adrian Smith lectured on "Why detectives and judges need to understand probability" and presented the medals to the UK IMO team. This annual event is attended by students and their teachers from many schools. It is the showpiece of the year's activities and is intended to be an inspiration to younger students as well as honouring the IMO team. We are most grateful to the Royal Society for hosting the event.

Preparations for IMO 2004 began in September 2003 with a camp held at the University of Bath. A squad of students then embarked on a strenuous programme of correspondence work based on a regular supply of mock IMO papers. Over the New Year, a group of 21 students went to Hungary to train with their opposite numbers in Budapest, a repeat of last year's inaugural venture.

Round 1 of the British Mathematical Olympiad (BMO1) took place on 3 December 2003. This event was organised by Alan West. In all 902 scripts were received and these were marked by a team of volunteers over a weekend in January, organised by Brian Wilson and Christine Farmer. The paper proved to be of a suitable standard and there were some excellent performances. The book *Mathematics: a very short introduction* by Tim Gowers was given to the 100 prize winners.

BMO2 was held on 24 February 2004; 100 students were invited to take part and 96 students submitted scripts. The event was organised by Richard Atkins, assisted by Rachel Greenhalgh, and the scripts were marked by Geoff Smith, Adrian Sanders, Christopher Bradley and Ceri Fiddes. Whilst on the hard side, the paper was of a suitable standard for selecting 20 students for the Trinity Training Weekend.

Special thanks are due to Brian Wilson, Christine Farmer and Alan West, all of whom retired on completion of this year's BMO1, having been involved in the organisation for many years.

The papers for this year's BMO1 and BMO2 were set by Gerry Leversha (Convener), Thomas Barnet-Lamb, Tim Cross, David Forster, Tony Gardiner and Adrian Sanders. Tim Austin and James Cranch compiled the annual booklet containing the problems and full solutions, copies of which were distributed to Leaders and Deputy Leaders from all over the world at the IMO.

The Training Weekend was held at Trinity College, Cambridge from 1 to 5 April 2004. By comparison with previous years, the programme lasted an extra day, which allowed some changes to the format. In particular the students sat two mock IMO papers rather than one. Other innovations introduced last year were retained. Thus there were some parallel sessions for students with different levels of experience. Also there was again a trainer from abroad, this time Professor Mircea Becheanu who has been the leader of the Romanian IMO team for many years.

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After the Training Weekend, nine students were chosen to form the IMO squad. This nonet embarked on further correspondence work prior to a camp at Oundle School at the end of May. The following were then selected to form the 2004 UK IMO team:

Giles Coope	Fallibroome High School, Macclesfield
David Fidler	Haberdashers' Aske's School
Paul Jefferys	Berkhamsted Collegiate School
Martin Orr	Methodist College, Belfast
Alexander Shannon	King's School, Canterbury
Anne Marie Shepherd	Ilkley Grammar School

The non-travelling reserves were:

Alex Davies	Winchester College
Matthew Lee	Robert Smythe School, Market Harborough
Alex Smith	King Edward VI School, Five Ways, Birmingham

The 45th IMO was held in Athens, Greece during the period 6-18 July 2004. The team stopped first at the island of Limnos in the northern Aegean Sea for more training and acclimatisation. As last year, each team member won a medal. Paul Jefferys won a Gold medal for the second year running; this was his fourth IMO medal in all, a remarkable performance. David Fidler gained a Silver medal and the others won Bronze medals. The team finished 20th out of 85 countries that took part. Congratulations are due to the students and to their trainers, particularly Geoff Smith and Adrian Sanders, who was Deputy Leader for the first time.

The annual National Mathematics Summer School was held again in Queen's College, Birmingham from 28 June to 2 July 2004. The 40 students (14 from Year 11, 18 from Year 10 and 8 from Year 9) were selected on the basis of performances in the IMOK competition organised by JOS. The programme included masterclasses, small group sessions, competitions and social events. Thomas Barnett-Lamb was the academic organiser and Mary Teresa Fyfe the domestic organiser. The IMO team members were otherwise engaged but a shadow IMO squad of 6 students took part. These students acted as leaders for the team competitions as well as having sessions geared to their own mathematical development.

Mentoring continued apace with three separate schemes again in operation under the overall direction of Richard Atkins and administered by Rachel Greenhalgh. The Advanced Level, directed by Thomas Barnett-Lamb, had 23 students, including all those in serious contention for the IMO Team, and 7 mentors. The Senior Scheme, mainly aimed at Years 10 to 12, was directed by Paul Russell and involved 166 students and 47 mentors. The Junior Scheme, directed by John Slater, is aimed at younger students. Well over 100 students took part and the majority of mentors were teachers. The schemes are open to all who are likely to benefit from them. It is hoped that they will assist the subtrust in its aim of involving more girls and more students from state schools. A successful training weekend for mentors was held at Trinity College, Cambridge on 1-2 May, the organisers being Imre Leader and Paul Russell.

We are extremely grateful to the many volunteers who make it possible for the subtrust to run its wide-ranging programme of activities, and to the institutions and sponsors who give it support, financial and otherwise.

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TEAM MATHS CHALLENGE SUBTRUST (TMCS)

The membership of the TMCS was:

Mr T J Heard (London, *Chair*)

Miss P Hunt (St Hilda's R. C. High School, Burnley, *Secretary*)

Mr M L Perkins (Orpington, *Treasurer*)

Mrs J Lewis (St Julian's School, Carcavelos, Portugal, *Competition Director*)

Dr G C Smith (University of Bath)

The successful launch of the Team Maths Challenge last year confirmed that the basic form of the competition is popular and workable. So this year has been one of development and expansion, but no radical change. We were fortunate in securing increased funding from the Department for Education and Skills and from the UKMT to achieve this expansion.

The response to the initial announcement was very encouraging: 1602 schools registered an interest (16% more than last year); of these 227 were new to the competition. In December round one, containing materials for three mathematical activities, was sent to all registered schools. By the end of January 1016 (+29%) schools had confirmed that they wished to enter teams for round two.

Each team was invited to one of 34 regional finals held between early March and late May in a widely spread set of venues. Schools were responsible for the often substantial costs of transport and supplying an accompanying teacher. The 'no show' rate was less than last year, perhaps because more schools now know what is involved when they enter, and because our reminder system was more thorough: a total of 950 teams participated.

Each regional final has a full day of mathematics, usually from 11 a.m. to 3.30 p.m. The regional finals were run by a team of regional coordinators, with at least two present at each final, plus local help. The teachers who accompany the teams are kept busy too – they have an essential part in the day's activities.

With the increase in entry we naturally wanted to be able to invite more teams to the National Final. We were delighted to have the use of the City of London Guildhall (plus the Old Library and Print Room), offered at a very greatly reduced cost by the Corporation of London for the National Final on 5 July, with adequate space for 60 teams. The historic ambience of Guildhall added to the sense of occasion, and the Guildhall staff were friendly and efficient. Overnight accommodation was available in a nearby King's College, London, hall of residence for those coming from afar (including for the first time the Channel Islands).

The theme for the separate poster competition was cyclic quadrilaterals. The questions given on the day proved to be quite tough, but there were enough solutions to produce three worthy winners. An innovation in the main competition was a 'Group Circus' in which the teams moved through a set of ten activities, some of them practical. This replaced the standard 'Group' round, and was more complicated to organize (and therefore not suitable for regional finals), but it worked well and added further variety.

The success of TMC depends on the quality of both the questions and the organization of the regional and national finals. For all this we depend on the hard work of a team of volunteers, who devise, check and format the questions and coordinate the finals, and on the able support of the Executive Director, Angela Gould, and her assistant, Bridgeen Gillespie. As the competition grows we need to recruit more volunteers: some willing teachers have already come forward, and we hope there will be more.

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EXECUTIVE DIRECTOR'S REPORT

UKMT activities again experienced good growth and expansion, with more pupils than ever participating in the Maths Challenges, the follow-on rounds and the Team Maths Challenge, and a record number of teachers attending one of the 'Enriching Mathematical Thinking' series. An ever-expanding group of enthusiastic volunteers and sponsors continued throughout the year to support the work of the Trust, and we are grateful for their hard work – they are vital to the continuing success of the UKMT's activities.

The Maths Challenges had over 550,000 entries, an increase of 7% on 2002/3; this is a greater rate of expansion than we experienced last year, and is hopefully sustainable over the next several years. The major part of the growth came in the Intermediate and Junior Challenges, with the senior entry remaining virtually static. A new 'catalogue' was sent out to schools this year, describing all the activities of the Trust, which brought in almost 200 new schools.

The Team Maths Challenge (TMC) took place for the second year and 1,602 schools entered round one (1,385 in 2002/3), with 34 finals (8 more than last year) run in venues across England, Wales and Northern Ireland. (Scotland has its own arrangements in place.)

The TMC is generously supported by the Department for Education and Skills and is offered free to schools. Most of the regional finals were held in schools and universities, and most of these were provided without charge, which was very helpful in enabling the Trust to retain the free entry policy. The National Final was on 5 July at the Guildhall in London, with the top 60 teams from across the UK taking part. It was a terrific event and we thank the Corporation of London for allowing it to be run in such splendid surroundings. The Trust is very grateful to the large group of regional coordinators and problem setters, without whose hard work and commitment this year's TMC would not have taken place.

The Teacher Meetings continued to expand – 7 'Enriching Mathematical Thinking' events took place in June, in Durham, Cardiff (twice), Wolverhampton, Manchester, London and Nottingham, attended by 932 teachers. The seminar agendas were researched with teachers well in advance, ensuring that these events were timely and topical. The meetings are offered free to delegates, as the series is generously supported by Legal & General; each attendee receives a pack of materials to take back to school and almost 200 packs were distributed to teachers who were unable to attend. UKMT is extremely grateful to all the speakers who appeared at the events, particularly to Jim Cormican of North Eastern Education and Library Board, Northern Ireland, and Dr Andrew Jobbings of UKMT Council, and to the universities that gave the use of their facilities for free.

We are grateful for the continued support and interest of our sponsors, and would particularly like to thank Tamsin Rees and Pauline Simpson of the Institute and Faculty of Actuaries, Fiona Clark of ARM, Neville Watson and Nicola Marshall of Legal & General and Janet Dallas, Andrew Davidson and Analia Fitzsimmons of the Department for Education and Skills.

We look forward to more growth and wider participation in the next year: 2004/5 promises more growth in the Maths Challenges, an increased number of schools and pupils taking part in the Team Challenge, an expanded series of Teacher Meetings and more opportunities to encourage the education of young people in mathematics.

TREASURER'S REPORT

The financial statements are reviewed below; this has been another successful year for the Trust. I am grateful for the support I have had from the Subtrust Treasurers (Alan Slomson, Patricia King, Don Collins, Alex Voice, Martin Perkins), from the Executive Director (Angela Gould) and from the Administrators in the Mathematics Challenges Office (Rachel Greenhalgh and Heather Macklin).

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CHAIRMAN'S REPORT

During the final months covered by this Annual Report the Trust was without a Chairman: Peter Neumann stepped down as Chairman in April after seven and a half years in the role and the new Chairman, Professor Bernard Silverman, only took up office after the end of the financial year. Preparation of this part of the Report thus falls to the Vice-Chairmen, which provides us with an opportunity to pay tribute to Peter's work.

Under Peter's chairmanship, entries to the Challenges have almost doubled, a greater breadth of activities has been offered and new competitions have become well established. We also successfully hosted the IMO in 2002 and our results in IMOs have improved. Peter has led the Trust with wisdom, good humour and vision and has steered it through several periods of difficulty, along the way shouldering a huge burden of responsibilities. The Annual General Meeting in April warmly endorsed a vote of thanks for all that Peter has done. We are very pleased that he will continue to support the work of the Trust as a member of Council.

Roger Bray retired from Council in April after seven and a half years as a member of Council and Secretary to the Trust. During both the inception and subsequent expansion of the Trust, Roger's sound judgement and guidance have been invaluable and, as Secretary, he has maintained a clear grasp of detail whilst also drawing Council's attention to longer-term issues. We are very grateful that Roger has agreed to continue to act as Secretary for the time being.

Three new members were welcomed to Council in April: Sir Alan Budd, Katie Chicot and Steve Mulligan.

By the end of the period covered by this Report, the first phase of restructuring of the governance of the Trust had been implemented, in the form of a Finance and General Purposes Committee.

The finances of the Trust are sound, but without room for complacency, and some expansion in Trust activities has been enabled by the increase in sponsorship Income reported elsewhere.

Full details of all the activities of the Trust appear elsewhere in this Report, testimony to the hard work and enthusiasm of the Trust's staff and volunteers, supported by teachers in schools. Without wishing in any way to diminish other items, we would like to highlight two: the Team Maths Challenge, which is now an established part of the Trust's work and continues to gain in popularity with schools and to attract new volunteers to the Trust; and the IMO team, together with all those who helped along the way, who are to be congratulated on the successful outcome in Athens.

REVIEW OF THE AUDITED FINANCIAL STATEMENTS FOR THE PERIOD

The Balance Sheet indicates that at 31 July 2004 the net assets of the Trust were £228,112 (2003: £126,841).

The core business of the Trust, the running of the Challenges has continued to prosper. The fee income has allowed the Trust to continue to expand its charitable activities, and to have the confidence to plan the restructuring of its management.

Sponsorship has continued to provide free entry to the Senior Challenge; to run regional Teacher Meetings; and has supported the training of the national Olympiad team. Generous grants from the DfES have supported the national Olympiad team and the increasingly popular Team Mathematics Challenge.

The direct charitable expenditure includes grants, the costs of running the Challenges, the training for the national Olympiad team, and outreach work.

The costs of fundraising are entirely part of the employment costs of the Executive Director, who has been active in seeking commercial sponsorship and Government support for the Trust's charitable work.

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The costs of administering and managing the charity (approximately £19,500) have grown. In part due to the costs of extra meetings to plan for the future organisation and management of the Trust; but remain very moderate for a volunteer-based and geographically scattered organisation, with several very active subgroups.

FUTURE PLANS OF THE CHARITY

The trust intends to continue and develop the activities described in this report. In particular the Trust intends to continue its efforts to attract new entries to its competitions from schools and areas as yet unrepresented. It is planned to produce a wider range of publications in support of teachers and students.

The trust is seeking to appoint a full-time Director.

RESERVES POLICY

It remains the policy of the Trust to hold reserves in its unrestricted funds, some of which may be designated for particular purposes. Some are held to protect the operations of the trust from the unforeseen disruption of the Challenges business; some to allow future development of the Trust's work.

In this year of stabilisation in the wake of the 2002 Mathematical Olympiad, it has not proved possible to make any substantial addition to the reserve, which remains, however, adequate to protect the Trust in case of disruption.

RISKS

The Trust's exposure to risk has been substantially reduced in the year by: the negotiation of a new relationship with the University of Leeds in the day-to-day running of the Challenges business, and potentially to act as employer of other staff for the Trust; the provision by Kings College London of an office for the Executive Director; the implementation of a policy of seeking Enhanced Disclosure for directors and others working with children; an increase in prices.

The Trustees continue to monitor risks, but believe that the steps taken, together with the insurances and the Health and Safety policy already in place, have reduced risk to reasonable levels.

TRUSTEES' RESPONSIBILITIES

Company and charity law require the trustees to prepare financial statements for each year which give a true and fair view of the state of affairs of the charitable company's financial activities during the year and of its financial position at the end of the year. In preparing those financial statements the trustees are required to:

- Select suitable accounting policies and then apply them consistently;
- Make judgements and estimates that are reasonable and prudent;
- Prepare the financial statements on the going-concern basis unless it is inappropriate to presume that the charity will continue in operation.

The trustees are responsible for keeping proper accounting records which disclose with reasonable accuracy the financial position of the charitable company and which enable them to ascertain the financial position of the charitable company and to ensure that the financial statements comply with the Companies Act 1985 and relevant charities regulations. They are also responsible for safeguarding the assets of the charitable company and for taking reasonable steps for the prevention and detection of fraud and other irregularities.

UNITED KINGDOM MATHEMATICS TRUST

REPORT OF THE TRUSTEES

For the year ended 31 July 2004

SMALL COMPANY EXEMPTION

Advantage has been taken of the exemption for smaller charities conferred by the Statement of Recommended Practice: Accounting by Charities (SORP 2000) to prepare this report in accordance with the special provisions of Part VII of the Companies Act 1985 relating to small companies.

AUDITORS

On 1 July 2004, the Grant Thornton partnership transferred its business to a limited liability partnership, Grant Thornton UK LLP. Under section 26(5) of the Companies Act 1989, the trustees consented to extend the audit appointment to Grant Thornton UK LLP from 1 July 2004.

Grant Thornton UK LLP offer themselves for reappointment as auditors in accordance with section 385 of the Companies Act 1985.

BY ORDER OF THE BOARD

R W Bray



SECRETARY
12 February 2005

**REPORT OF THE INDEPENDENT AUDITORS TO THE MEMBERS OF
UNITED KINGDOM MATHEMATICS TRUST**

We have audited the financial statements of United Kingdom Mathematics Trust for the year ended 31 July 2004 which comprise the principal accounting policies, the statement of financial activities, the balance sheet and notes 1 to 15. These financial statements have been prepared under the accounting policies set out therein.

This report is made solely to the company's members, as a body, in accordance with Section 235 of the Companies Act 1985. Our audit work has been undertaken so that we might state to the company's members those matters we are required to state to them in an auditors' report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the company and the company's members as a body, for our audit work, for this report, or for the opinions we have formed.

Respective responsibilities of directors and auditors

The directors also act as trustees for the charitable activities of United Kingdom Mathematics Trust for the purposes of company law. Their responsibilities for preparing the trustees' annual report and the financial statements in accordance with United Kingdom law and accounting standards are set out in the statement of trustees' responsibilities.

Our responsibility is to audit the financial statements in accordance with relevant legal and regulatory requirements and United Kingdom auditing standards.

We report to you our opinion as to whether the financial statements give a true and fair view and are properly prepared in accordance with the Companies Act 1985. We also report to you if, in our opinion, the trustees' report is not consistent with the financial statements, if the charity has not kept proper accounting records, if we have not received all the information and explanations we require for our audit, or if information specified by law regarding trustees' remuneration and transactions with the charity is not disclosed.

We read other information contained in the trustees' annual report, and consider whether it is consistent with the audited financial statements. We consider the implications for our report if we become aware of any apparent misstatements or material inconsistencies with the financial statements. Our responsibilities do not extend to any other information.

Basis of opinion

We conducted our audit in accordance with United Kingdom auditing standards issued by the Auditing Practices Board. An audit includes examination, on a test basis, of evidence relevant to the amounts and disclosures in the financial statements. It also includes an assessment of the significant estimates and judgements made by the trustees in the preparation of the financial statements, and of whether the accounting policies are appropriate to the charity's circumstances, consistently applied and adequately disclosed.

We planned and performed our audit so as to obtain all the information and explanations which we considered necessary in order to provide us with sufficient evidence to give reasonable assurance that the financial statements are free from material misstatement, whether caused by fraud or other irregularity or error. In forming our opinion we also evaluated the overall adequacy of the presentation of information in the financial statements.

**REPORT OF THE INDEPENDENT AUDITORS TO THE MEMBERS OF
UNITED KINGDOM MATHEMATICS TRUST**

Opinion

In our opinion the financial statements give a true and fair view of the state of the charity's affairs as at 31 July 2004 and of its incoming resources and application of resources, including its income and expenditure, for the year then ended and have been properly prepared in accordance with the Companies Act 1985.



GRANT THORNTON UK LLP
REGISTERED AUDITORS
CHARTERED ACCOUNTANTS
Oxford

18 February 2005

UNITED KINGDOM MATHEMATICS TRUST

PRINCIPAL ACCOUNTING POLICIES

BASIS OF PREPARATION

The financial statements have been prepared under the historical cost convention and in accordance with the Financial Reporting Standard for Smaller Entities (effective June 2002), and follow the recommendations in the Statement of Recommended Practice: Accounting by Charities (the SORP) issued in October 2000.

The principal accounting policies of the company have remained unchanged from the previous year and are set out below.

INCOME

Examination fees are accounted for on receipt. Income from sales of papers is accounted for when the charity becomes legally entitled to the income.

GRANTS RECEIVABLE/SPONSORING INCOME

Grants are credited as incoming resources when they are receivable provided conditions for receipt have been complied with, unless they relate to a specific future period, in which case they are deferred.

EXPENDITURE

Expenditure, which is charged on an accruals basis, is allocated between

- Expenditure incurred in generating funds
- Expenditure incurred to the fulfilment of the charity's objectives (charitable); and
- Expenditure incurred which is not directly attributable to either of the above (management and administration).

DEPRECIATION

Depreciation is calculated to write down the cost or valuation less estimated residual value of all tangible fixed assets by equal annual instalments over their expected useful lives. The periods generally applicable are:

Furniture, fixtures and equipment	3 years
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All fixed asset purchases are used for direct charitable purposes.

UNITED KINGDOM MATHEMATICS TRUST

STATEMENT OF FINANCIAL ACTIVITIES

For the year ended 31 July 2004

	Note	Unrestricted Funds £	Restricted Funds £	2004 Total £	2003 Total £
Income and expenditure					
Incoming resources					
Grants, donations and sponsorship		20,000	96,812	116,812	83,332
Interest receivable	2	4,123	-	4,123	2,993
Examination entry fees and related income		456,671	-	456,671	388,023
Summer school fees		3,600	-	3,600	3,120
Sale of papers		10,596	-	10,596	2,267
IMO 2002		-	-	-	6,481
Total incoming resources	1 10	494,990	96,812	591,802	486,216
Resources expended					
Cost of generating funds	3	10,732	-	10,732	9,373
Direct charitable expenditure	4	366,522	93,812	460,334	415,907
Management and administration of the charity	5	19,465	-	19,465	17,734
Total resources expended		396,719	93,812	490,531	443,014
Net incoming resources and net movement in funds for the year		98,271	3,000	101,271	43,202
Funds balances brought forward at 1 August 2003		126,841	-	126,841	83,639
Funds balances carried forward at 31 July 2004		225,112	3,000	228,112	126,841

All amounts relate to continuing activities.

All recognised gains and losses are included in the statement of financial activities.

There were no movements in funds other than the net incoming resources for the year.

The accompanying accounting policies and notes form an integral part of these financial statements.

UNITED KINGDOM MATHEMATICS TRUST

BALANCE SHEET AS AT 31 JULY 2004

	Note	£	2004 £	£	2003 £
Fixed assets					
Tangible assets	7		5,256		11,196
Current assets					
Debtors	8	47,648		48,949	
Cash at bank and in hand		205,581		113,161	
		253,229		162,110	
Creditors: amounts falling due within one year	9	30,373		46,465	
Net current assets			222,856		115,645
Total assets less current liabilities			228,112		126,841
Income funds					
Unrestricted funds			225,112		126,841
Restricted funds			3,000		-
			228,112		126,841

These financial statements have been prepared in accordance with the special provisions of Part VII of the Companies Act 1985 relating to small companies.

The financial statements were approved by the Trustees on 12 February 2005.

W B Stewart Trustee



The accompanying accounting policies and notes form an integral part of these financial statements.

UNITED KINGDOM MATHEMATICS TRUST

NOTES TO THE REPORT AND FINANCIAL STATEMENTS

For the year ended 31 July 2004

1 INCOMING RESOURCES

Examination entry fees

This income arises from the entry fees paid by schools for students participating in the challenges run by the Trust.

Sales of papers

This income arises from the sale of past papers and other materials (including the Year Book) in connection with the challenges run by the Trust.

2 INVESTMENT INCOME

Investment income comprises income from:

	2004	2003
	£	£
Bank deposits	<u>4,123</u>	<u>2,993</u>

3 COST OF GENERATING FUNDS

	Restricted Funds	Unrestricted Funds	2004 Total	2003 Total
	£	£	£	£
Executive Director's salary	-	8,513	8,513	8,431
Social security and pension	-	1,851	1,851	722
Other direct costs	-	368	368	220
	<u>-</u>	<u>10,732</u>	<u>10,732</u>	<u>9,373</u>

UNITED KINGDOM MATHEMATICS TRUST

NOTES TO THE REPORT AND FINANCIAL STATEMENTS

For the year ended 31 July 2004

4 DIRECT CHARITABLE EXPENSES

	Restricted Funds £	Unrestricted Funds £	2004 Total £	2003 Total £
Gross payable to institutions (see below)	-	700	700	1,000
Team competition	-	-	-	14,373
Printing and stationery	4,141	76,929	81,070	87,109
Postage and telephone	2,994	53,292	56,286	52,092
Administrator's salary and assistants' fees	-	76,775	76,775	76,741
Executive Director's salary	-	40,135	40,135	40,085
Social security and pension	1,012	20,854	21,866	9,840
Markers' fees and prizes	6,682	11,086	17,768	7,777
Training weekends, IMO training and regional circles	26,572	1,433	28,005	24,515
Teacher meetings	-	21,965	21,965	7,868
Travel and accommodation	24,439	14,262	38,701	43,085
Summer school costs	-	12,306	12,306	10,125
Rent	-	22,631	22,631	20,789
Depreciation	-	7,705	7,705	5,950
Other direct costs	27,972	6,449	34,421	14,558
	<u>93,812</u>	<u>366,522</u>	<u>460,334</u>	<u>415,907</u>

A Grant of £700 (2003: £1,000) was paid to the World Federation of National Mathematics Contests.

5 MANAGEMENT AND ADMINISTRATION OF THE CHARITY

	Restricted Funds £	Unrestricted Funds £	2004 Total £	2003 Total £
Legal	-	-	-	165
Audit costs	-	6,300	6,300	4,876
Accountancy fees	-	1,175	1,175	999
Cost of meetings	-	11,990	11,990	11,694
		<u>19,465</u>	<u>19,465</u>	<u>17,734</u>

UNITED KINGDOM MATHEMATICS TRUST

NOTES TO THE REPORT AND FINANCIAL STATEMENTS

For the year ended 31 July 2004

6 STAFF COSTS

	2004 £	2003 £
Salaries	125,423	125,257
Social security costs	10,668	6,230
Pension contributions	13,049	4,332
	<u>149,140</u>	<u>135,819</u>

During the year the UKMT had one full-time employee, the Executive Director, and two full-time equivalent employees who are employed jointly with the university of Leeds, the administrative staff of the Maths Challenges Office. In addition the UKMT directly employed one part-time clerical member of staff and the University of Leeds employed part-time clerical staff to provide services to the Maths Challenges Office.

The average number of employees during the year was one (2003:one).

W P Richardson received an honorarium of £1,940 (2003: £1,980) in connection with the Trust's publications. No other trustee received any remuneration from the Trust.

	2004 £	2003 £
Executive director's remuneration	<u>48,648</u>	<u>48,516</u>

No employees earned more that £50,000 during the year (2003: none).

7 TANGIBLE FIXED ASSETS

	Fixtures Fittings & Equipment £
Cost	
At 1 August 2003	45,001
Additions	<u>1,765</u>
At 31 July 2004	<u>46,766</u>
Depreciation	
At 1 August 2003	33,805
Provided in the year	<u>7,705</u>
At 31 July 2004	<u>41,510</u>
Net book amount at 31 July 2004	<u>5,256</u>
Net book amount at 31 July 2003	<u>11,196</u>

UNITED KINGDOM MATHEMATICS TRUST

NOTES TO THE REPORT AND FINANCIAL STATEMENTS

For the year ended 31 July 2004

8 DEBTORS

	2004 £	2003 £
Other debtors	2,406	-
Prepayments and accrued income	-	1,349
Grants and sponsorship receivable	45,242	47,600
	<u>47,648</u>	<u>48,949</u>

9 CREDITORS: AMOUNTS FALLING DUE WITHIN ONE YEAR

	2004 £	2003 £
Pension provision	17,558	13,093
Accruals and deferred income	12,815	33,372
	<u>30,373</u>	<u>46,465</u>

10 RESTRICTED FUNDS

The terms of certain grants and donations receivable during the year restricted the way in which the income could be used. The amounts involved were given to be used for the following purposes:

	SCS Fund	BMOS Fund	TMCS Fund	Total
At 1 August 2003	-	-	-	-
Incoming Resources	7,000	46,812	43,000	96,812
Expenditure	7,000	43,812	43,000	93,812
Gains/Losses	-	-	-	-
Transfers	-	-	-	-
	<u>-</u>	<u>3,000</u>	<u>-</u>	<u>3,000</u>

The Senior Challenge Subtrust (SCS) Fund was established following receipt of donations in support of the scheme. The conditions of such gifts are that the capital and income are to be used in support of the SCS scheme. Further details of the SCS fund can be found within the Report of the Trustees. All such donations received had been spent at the end of the financial year ended 31 July 2004.

The British Mathematical Olympiad Subtrust (BMOS) Fund was established following receipt of donations in support of the scheme. The conditions of the gift are that the capital and income are to be used in support of the BMOS scheme. Further details of the BMOS fund can be found within the Report of the Trustees. The balance on the fund of £3,000 is in support of future BMOS projects.

The Team Mathematic Challenge Subtrust (TMCS) Fund was established following receipt of donations in support of the scheme. The conditions of the gift are that the capital and income are to be used in support of the TMCS scheme. Further details of the TMCS scheme can be found within the Report of the Trustees. All such donations received had been spent at the end of the financial year ended 31 July 2004.

UNITED KINGDOM MATHEMATICS TRUST

NOTES TO THE REPORT AND FINANCIAL STATEMENTS

For the year ended 31 July 2004

11 TAXATION

The charity is a registered charity and therefore entitled to exemptions from United Kingdom Income and Corporation Tax in accordance with section 505 Income and Corporation Tax Act 1988.

12 TRUSTEES' EXPENSES

During the year, seventeen trustees (2003: fifteen) were reimbursed from charity funds for expenses incurred by them for work performed on behalf of the charity.

The total amount reimbursed was £15,997 (2003: £22,559), and related to travel, printing, postage, telephone expenses and marking costs

13 RIGHTS OF MEMBERS

The Trust is a company limited by guarantee. Each member undertakes to contribute such amounts as may be required (not exceeding £1) to the assets of the Trust if it is wound up while he/she is a member, or within one year after he/she ceases to be a member, for the payment of its debts and liabilities.

The income and property of the Trust must be used solely towards the promotion of its objects and no amount can be paid to any member by way of dividend or other share of profit. In the event of the Trust being wound up with a surplus, that surplus must be transferred to another charitable body with similar objects.

Because of the restrictions on the distribution of surpluses, there are no equity interests in the Trust's reserves.

14 ANALYSIS OF NET ASSETS BETWEEN FUNDS

	Unrestricted £	Restricted £	Total £
Tangible fixed assets	5,256	-	5,256
Current assets	250,229	3,000	253,229
Current liabilities	30,373	-	30,373
	<u>225,112</u>	<u>3,000</u>	<u>228,112</u>

15 CAPITAL COMMITMENTS AND CONTINGENT LIABILITIES

The charity did not have any capital commitments or contingent liabilities at 31 July 2004 or 31 July 2003.