

## Being a Professional Mathematician

### Equal opportunities in mathematics? – worksheet

- 1) Find on the internet group photographs of participants in mathematics conferences.

Look at staff lists of university mathematics departments.

Consider the classes you take as a mathematics undergraduate.

Look at the list of mathematicians at the MacTutor history of mathematics website (<http://www-history.mcs.st-and.ac.uk/>).

Look at the list of Fields Medallists, or other lists of eminent mathematicians.

Are these evidence of diversity in mathematics?

What is the gender balance? (In the case of conferences, has this changed over time?)

Does the mix reflect that of the communities from which they are drawn?

- 2) Research some of the following mathematicians. What obstacles, if any, did they face as a result of their gender, race or other factors? Were and are there differences in equal opportunities in different parts of the world?

Emilie du Chatelet (listen to Patricia Fara's account at [www.BeingAMathematician.org](http://www.BeingAMathematician.org))

Florence Nightingale (listen to Noel-Ann Bradshaw's account at [www.BeingAMathematician.org](http://www.BeingAMathematician.org))

James Joseph Sylvester (listen to Karen Parshall's account at [www.BeingAMathematician.org](http://www.BeingAMathematician.org))

David Blackwell  
Emmy Noether  
S. Ramanujan

Mathematicians in the [www.BeingAMathematician.org](http://www.BeingAMathematician.org) case studies - Danny Brown, Rosemary Dyson, Nira Chamberlain, Sue Merchant, Mason Porter, Gwyneth Stallard (listen to the recorded interviews)

Jonathan Farley (see <http://www.guardian.co.uk/commentisfree/cifamerica/2012/apr/12/black-mathematicians-john-derbyshire-fields-medal>)

See also the book *Loving + Hating Mathematics* by Reuben Hersh and Vera John-Steiner for discussion of lack of equal opportunities in the US mathematics world in the second half of the twentieth century.

3) Is there concern in the UK mathematics community about equal opportunities?

The London Mathematical Society as a “Women in Mathematics” Committee (see Gwyneth Stallard interview at [www.BeingAMathematician.org](http://www.BeingAMathematician.org)). What does this tell us about the situation?

Consider the LMS policy on Women in Mathematics at

[http://www.lms.ac.uk/sites/default/files/Mathematics/wim\\_statement.pdf](http://www.lms.ac.uk/sites/default/files/Mathematics/wim_statement.pdf)

What does this tell us about the situation?

Do you support this policy?

What is the “leaky pipeline” in UK mathematics? (In the [www.BeingAMathematician.org](http://www.BeingAMathematician.org) case studies, listen to Mason Porter talking about this. Listen to Gwyneth Stallard and Sue Merchant talking about returning to their mathematical careers after maternity leave, and listen to Rosemary Dyson about her experience as a woman in mathematics.)

What can be done to reduce the leaks in this pipeline?

Are things happening?

Is there similar concern about the racial equality in UK mathematics? Why, or why not?

What steps could be taken to make the UK mathematical community more representative of the population as a whole?

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