

## Being a Professional Mathematician

### What makes a professional mathematician? – worksheet

- 1) What is your definition of mathematician?

You might consider the following:

Someone who does mathematics  
Someone who uses mathematics  
Someone who proves theorems  
Someone who solves problems  
Someone who has a degree in mathematics  
Someone who has studied or is studying mathematics

Do you consider yourself to be a mathematician?

Listen to what the case study interviewees at [www.BeingAMathematician.org](http://www.BeingAMathematician.org) say about being a mathematician – eg Danny Brown: is a maths teacher a mathematician?

What definition do professional bodies (LMS, IMA, RSS) use?

- 2) What makes something a “profession”?

Think of examples and suggest what distinguishes them from non-professional activities.

Which of the characteristics of other professions apply to the world of mathematics?

- 3) What credentials might a mathematician have?

In what circumstances would they be useful?

(Think about the different views expressed in the case studies at [www.BeingAMathematician.org](http://www.BeingAMathematician.org) – for example Nira Chamberlain, Peter Furness, Sue Merchant and Mason Porter)

- 4) What is the role of professional bodies?

(You will find at [www.BeingAMathematician.org/ProfessionalBodies](http://www.BeingAMathematician.org/ProfessionalBodies) interviews with representatives of the four main mathematical professional bodies and learned societies, together with links to the websites of other organisations)

- What are the professional bodies and learned societies in mathematics?
- How many members do they have? How does this compare with, say, the Institute of Physics?
- What kind of people are members of each society? Academics? Industry mathematicians? Teachers? Students? Retired people?

- Do people join more than one of these societies? Why, or why not?
- How do you join?
- What grades of membership do they offer?
- Do they offer credentials such as letters after your name?
- What else do they offer to support professional mathematicians?

What are the consequences of the existence of so many professional bodies and learned societies in mathematics?

Who puts the views of mathematicians to policy-makers?

Is there a single voice for mathematicians, like the Institute of Physics for physicists?

Would mathematics benefit from having a single professional body? Why has this not happened?

- 5) In a recent book (*Duel at Dawn: Heroes, Martyrs and the Rise of Modern Mathematics*) Amir Alexander has argued that since the nineteenth century mathematicians have seen their role model as the romantic rebel, working alone, and probably dying young and unappreciated by the established mathematics community. Examples would include Abel and Galois, as presented in E.T. Bell's *Men of Mathematics*. Is this your idea of a mathematician? Does it match the reality?

Listen to the interviews with Gwyneth Stallard and Rosemary Dyson at [www.BeingAMathematician.org](http://www.BeingAMathematician.org). Do they have similar views about being a mathematician?

This worksheet was created by Tony Mann and Chris Good in 2012 for the project "Being a Professional Mathematician", supported by the MSOR Network, the Institute of Mathematics and its Applications and the Universities of Greenwich and Birmingham as part of the National HE STEM Programme. It is released under a Creative Commons Attribution-NonCommercial-ShareAlike licence. The project materials are available at [www.BeingAMathematician.org](http://www.BeingAMathematician.org).



UNIVERSITY  
of  
GREENWICH

UNIVERSITY OF  
BIRMINGHAM



