



These clips are from a lesson using [To log or not to log?](#) The clips may help you prepare to use the resource or reflect on classroom practice.

These students kindly agreed to let us film them sharing their initial thoughts as they worked on this task. Our aim in selecting these classroom video clips is to offer an opportunity to see the different ways mathematical thinking is revealed, as it plays out, rather than as a final and polished piece of work.

After viewing each clip

- Spend a minute replaying the clip in your mind. Try to reconstruct significant parts of the episode. If watching with a colleague, compare your accounts of what you saw — watch the clip again if necessary to reach agreement.
- Consider the prompts relating to student thinking and the teacher's role.
- Try to relate these episodes to your own classroom experience.

Please note that these video clips have been arranged in the order in which they were filmed in the lesson.

Clip A



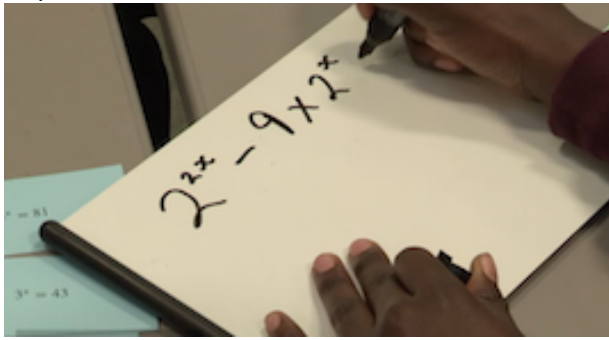
Student thinking

- What do these students notice as they first sort out the cards?
- What categories do they suggest as they continue to work with the cards?

Teacher role

- What might have happened if the teacher had intervened?
- What do we see as a result of the teacher not intervening?

Clip B



Student thinking

- What approaches do these students take to solve the equations?
- How do the students verify, question or justify their approaches?
- How does this relate to the task of sorting the cards into groups?

Teacher role

- What might have happened if the teacher had intervened?
- What do we see as a result of the teacher not intervening?

Clip C



Student thinking

- How do these students use the categories suggested by the teacher?
- What ideas related to logarithms and indices are these students using?

Teacher role

- What do we see as a result of the teacher intervening?
- What might have happened if the teacher had not intervened?

What does each clip reveal about these students' understanding of logarithms?

As a teacher, what choices might you make in a similar situation in your own classroom?

What insights and information might you need to decide whether an intervention would be appropriate?

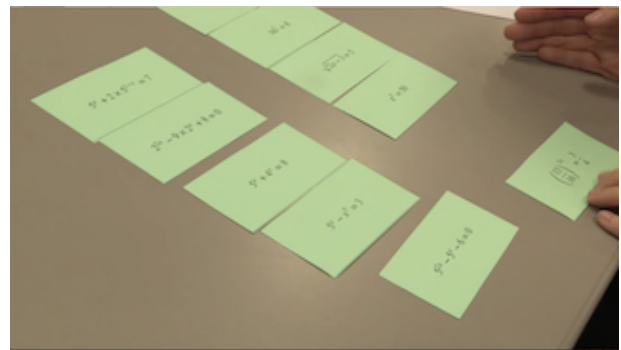
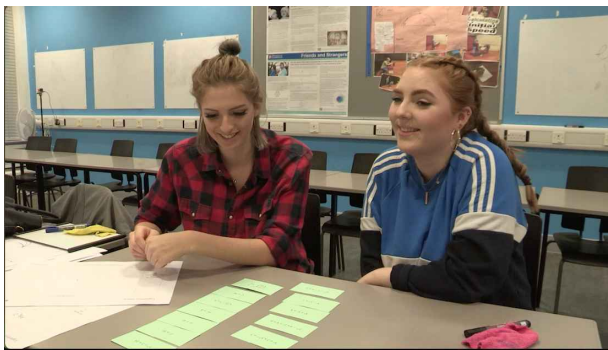
Teacher reflections

Here the teacher shares his plans for the lesson and how he expects the students to respond to the task.



Student thoughts

Here two students discuss the task, and then share more general thoughts about card sorting tasks.



As a teacher, what are the different ways you could use card sorts with your students?



We are very grateful to these students and their teacher for allowing us to film them working on *To log or not to log?* and the subsequent discussion.

We are grateful to Julian Marshall for directing the filming, selecting and editing some video clips and for his guidance on the use of classroom video.