## THINKING DEEPLY ABOUT MULTIPLICATION



Professor Grace Alele-Williams (1932-2022) was a Nigerian mathematician and professor of mathematics education. She pioneered a mathematics curriculum in Africa that encouraged students to develop mathematical curiosity, talk about their ideas clearly, and think critically and analytically. She used questions similar to the one below to explain that students should be supported to make generalisations about whole numbers rather than just performing operations with them.

1. Draw, sketch or show 2 x 7
2. Now draw, sketch or show 7 x 2
3. What do you see as the difference/s between $2 \times 7$ and $7 \times 2$ ?
4. What do you see as the difference/s between 1 x 0 and 0 x 1? Can you draw,
sketch or show what you mean?

