## Ritangle

A competition designed for teams of students aged 16-18 who are currently studying either A level Mathematics, the International Baccalaureate or Scottish Highers.

The diagram shows an equilateral triangle with some lengths labelled.

Find x

Luke wrote down this equation, in variables x and z, on a piece of paper;

Then gather a team and pit your mathematical wits against others in this year's Ritangle competition!

$$\frac{x-I}{9} - \frac{6}{z} = I$$

He then turned his piece of paper through 180°, revealing a second equation in variables  $m{x}$  and  $m{z}$ . He decided to solve the two equations together as a pair of simultaneous equations.

If, after doing this, he multiplies all the possible values of  $oldsymbol{x}$ together, what does he get?

## Ready to register? mei.org.uk/ritangle



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