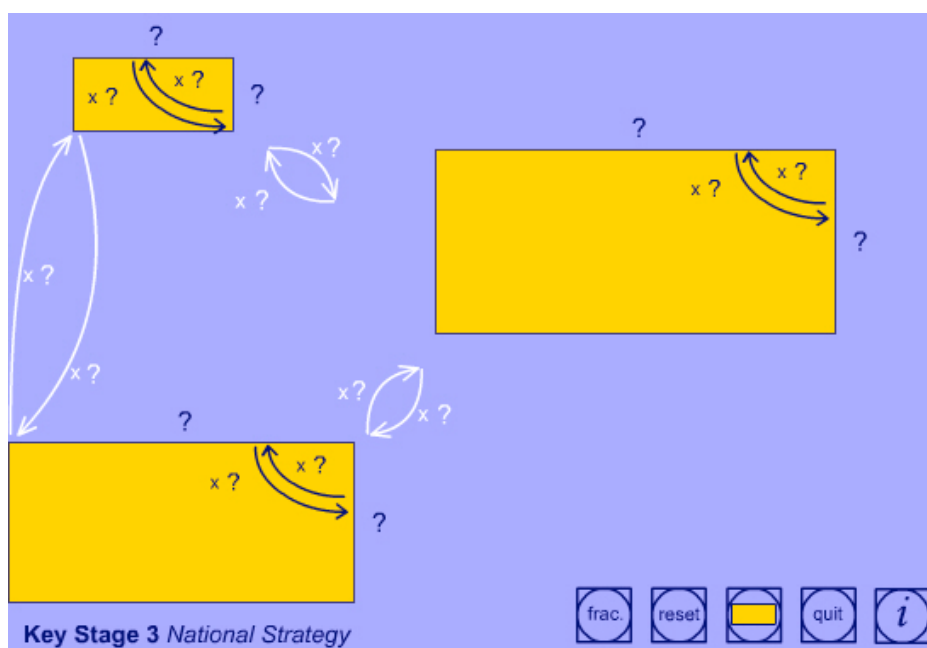


How to use 'Photographic enlargements'

This ITP offers an alternative way of presenting the activity Photographic enlargements, outlined on pages 23-24 of the *Year 9 Proportional reasoning* mini-pack. Refer to these pages as you explore the ITP.



Revealing hidden values

The screen shows three similar rectangles. Eighteen values are hidden – six are dimensions of rectangles, six are scalings between corresponding dimensions and six are internal ratios between dimensions on the same rectangle. Select a question mark to reveal the hidden value.

The first button changes the revealed scalings between fraction and decimal form:



Fractions note: It is preferable to work initially with fractions. The inverses are easier to spot and they will always be accurate. Scalings between corresponding dimensions are given as fractions in their lowest terms. Internal ratios are given as fractions formed by one dimension divided by the other without simplification.



Decimals note: Decimals are rounded to two decimal places and some calculations are subject to rounding error, particularly where repeated scalings are concerned. The reasons for any discrepancies between displayed values and those given by calculator conversion of fractions should be used as a teaching point on degrees of accuracy.



Selects a new set of similar rectangles with hidden values.



Replaces rectangles with triangles. This enables consideration of scaling triangles as a precursor to trigonometry.



Closes the program.



Opens the help panel which gives information about the control elements on the screen as the mouse is moved over them.