About

This is a quick-paced activity requiring a mental approach. Pupils could respond by using whiteboards or equivalent.

- Give a value and a scale factor (perhaps point to these on the board; see the table on the right).
- Initially use only fractions, then only decimals, then a mixture.
- Ask '**About** how big will the resulting value be?'
- Part way through ask some pupils to explain their strategies in general for particular scale factors, e.g. 'How do we find the approximate effect of scaling anything by a factor of $\frac{8}{3}$?'
- Suggestions are given here but this list should be varied.
- Alternatively specify the approximation and ask for the scale factor. Which scale factors would give a result which is:
  - about half of the original?
  - about the same as the original?
  - about twice the size of the original?
  - about ten times the original?

Values to scale	Scale factor	Scale factor
5	$\frac{3}{7}$	0.4
1.6	$\frac{8}{3}$	1.7
29	$\frac{5}{4}$	1.9
240	$\frac{9}{4}$	0.8
0.87	$\frac{19}{3}$	0.53
11.2	$\frac{7}{6}$	1.02
	$\frac{4}{5}$	0.09
	$\frac{4}{13}$	3.3
	$\frac{10}{7}$	9.7