

Y8 – Autumn – Block 1 – Step 7 – Express ratios in form 1 : n

Question	Answer (accept fractional and decimal equivalents throughout)										
1	a) Any three ratios equivalent to 1 : 4 e.g. 3 : 12, 2 : 8, 1 : 4 b) Students explain verbally. They could group the rows to show this. c) 1 : 4 as the only common factor is 1 d) 1 : 4										
2	1 : 2										
3	a) For every 12 white squares, there are 18 yellow squares. For every 6 white squares, there are 9 yellow squares. For every 2 white squares, there are 3 yellow squares. b) For every 1 white square, there are 1.5 yellow squares. c) 1 : 1.5										
4	a) 1 : 3 b) 1 : 3 c) 1 : 4 d) 1 : 4.5 e) 1 : 2.25 f) 1 : 0.5										
5	a) 4 : 1 b) 2 : 1 c) 2 : 1 d) 0.5 : 1 e) $\frac{2}{3} : 1$ f) 0.25 : 1										
6	For every 1 person who prefers red, 2 people prefer blue. For every 1 person who prefers red, 3 people prefer green. For every 1 person who prefers blue, 0.5 people prefer red. For every 1 person who prefers green, $\frac{2}{3}$ people prefer blue.										
7	<table border="1" style="width: 100%; text-align: center;"> <thead> <tr> <th style="width: 33%;"></th> <th style="width: 33%;">1 : n</th> <th style="width: 33%;">n : 1</th> </tr> </thead> <tbody> <tr> <td>men : women</td> <td>1 : 1.5</td> <td>$\frac{2}{3} : 1$</td> </tr> <tr> <td>women : men</td> <td>$1 : \frac{2}{3}$</td> <td>1.5 : 1</td> </tr> </tbody> </table>			1 : n	n : 1	men : women	1 : 1.5	$\frac{2}{3} : 1$	women : men	$1 : \frac{2}{3}$	1.5 : 1
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women : men	$1 : \frac{2}{3}$	1.5 : 1									
8	a) 1 : 0.6 $\frac{5}{3} : 1$ b) 1 : 1.8 $\frac{5}{9} : 1$ c) $1 : \frac{50}{7}$ $\frac{7}{50} : 1$ d) $1 : \frac{40}{27}$ $\frac{27}{40} : 1$										