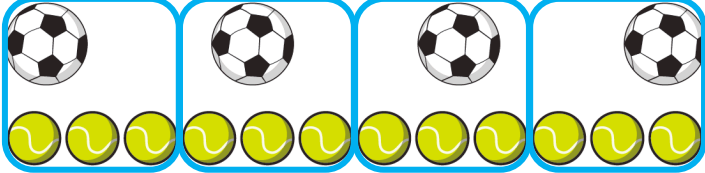
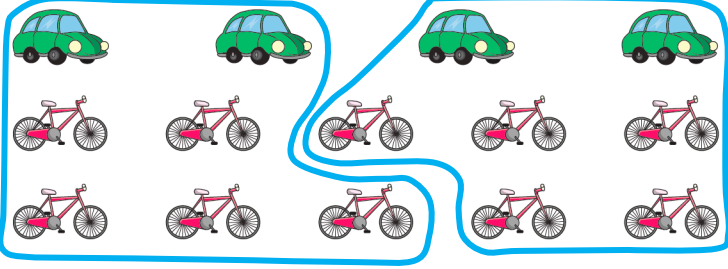

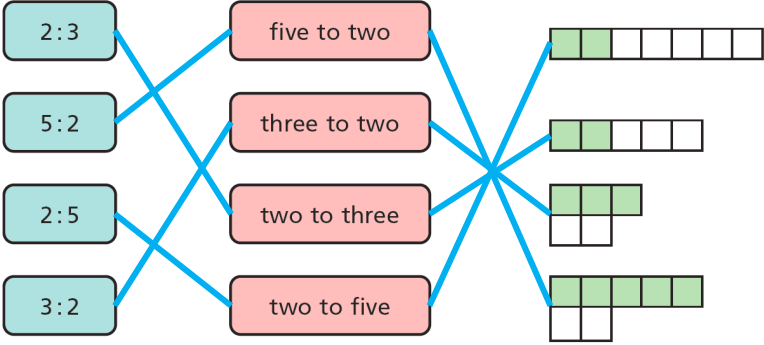


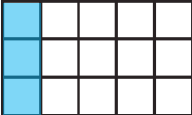

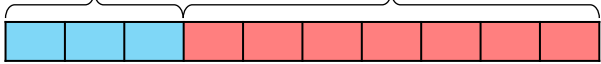


Question	Answer
1	For every 3 sheep there are 6 cows. For every 2 cows there is 1 sheep.
2	a)  b) 
3	For every 6 squares there are 3 circles. For every 6 squares there are 9 triangles. For every 1 square there is $\frac{1}{2}$ a circle.
4	a) child 's tower with 3 green cubes for every red cube b) The towers will both have 3 green cubes for every red cube. The order and total number of cubes may be different.
5	multiple possible answers, e.g.: 
6	multiple possible answers, e.g.: For every 6 red cubes there are 2 yellow cubes. For every 4 yellow cubes there are 12 red cubes. For every 1 yellow cube there are 3 red cubes.
7	a) She has written lollipops and cookies the wrong way round. b) multiple possible answers, e.g.: For every 3 cookies there are 2 lollipops.
8	child's drawing of at least 15 red fish and 5 goldfish, with 3 times as many red fish as gold fish
9	6

Y6 – Spring – Block 6 – Step 2 – Ratio and fractions Answers

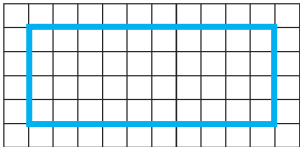
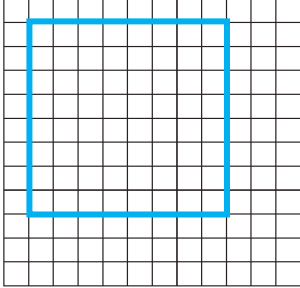
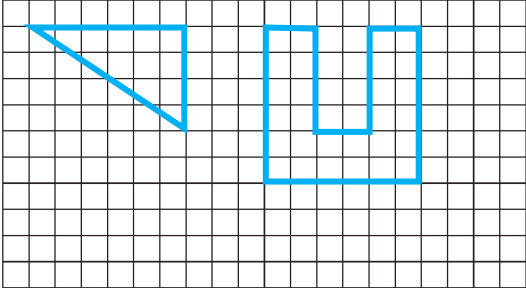

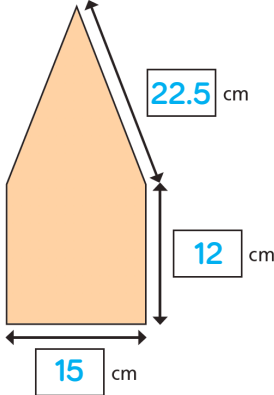
Question	Answer
1	a) There are 8 counters altogether. b) There are 5 white counters. c) There are 3 black counters. d) 3 out of the 8 counters are black . e) 5 out of the 8 counters are white.
2	For every 3 cows there are 2 sheep. The ratio of cows to sheep is 3 to 2 $\frac{3}{5}$ of the animals are cows. $\frac{2}{5}$ of the animals are sheep.
3	a) $\frac{5}{6}$ b) $\frac{1}{6}$ c) 5 to 1 d) 1 to 5
4	a) $\frac{4}{10}$ or $\frac{2}{5}$ b) $\frac{6}{10}$ or $\frac{3}{5}$ c) 6 to 4 or 3 to 2 d) 4 to 6 or 2 to 3 There are two different possible answers for each part.
5	There is 1 striped rectangle to 3 shaded rectangles to 4 unshaded rectangles. a) $\frac{1}{8}$ b) $\frac{3}{8}$ c) $\frac{4}{8}$
6	Rosie There are 5 cubes in total and 2 of the cubes are brown.
7	2 to 6
8	5 to 3
9	a) He has 5 strawberries for every 1 lime. b) $\frac{5}{6}$ c) $\frac{1}{6}$

Question	Answer
1	
2	<p>Mo For every 5 purple cubes there are 4 yellow cubes.</p>
3	<p>The ratio of counters to marbles is 5 : 4 The ratio of marbles to cubes is 4 : 3 The ratio of cubes to counters is 3 : 5 The ratio of counters to cubes is 5 : 3 The ratio of counters to cubes to marbles is 5 : 3 : 4</p>
4	<p>a) squares For every 1 triangle there are 3 squares. b) multiple possible answers, e.g.: 3 triangles and 9 squares</p>
5	<p>a) 1:3 b) Ron There are still 3 rulers for every 1 pencil.</p>
6	<p>child's drawing of 10 chickens</p>
7	<p>a) </p> <p>b) </p> <p>c) </p>
8	<p>a) ratio of white chocolates to dark chocolates b) ratio of milk chocolates to white chocolates c) ratio of dark chocolates to not dark chocolates</p>

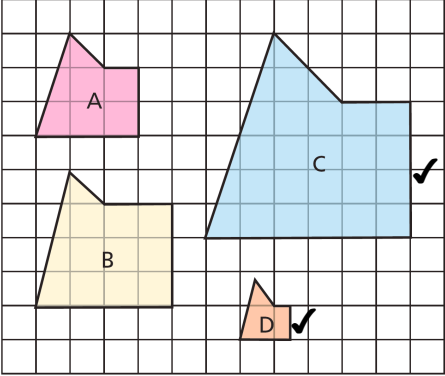
Question	Answer																		
1	a) 6 b) 5																		
2	yellow 12, red 8																		
3																			
4	18																		
5	9																		
6	<p>a)</p> <table border="1"> <thead> <tr> <th>Juice</th> <th>Water</th> </tr> </thead> <tbody> <tr> <td>1 litre</td> <td>5 litres</td> </tr> <tr> <td>2 litres</td> <td>10 litres</td> </tr> <tr> <td>4 litres</td> <td>20 litres</td> </tr> <tr> <td>100 ml</td> <td>500 ml</td> </tr> <tr> <td>200 ml</td> <td>1,000 ml or 1 litre</td> </tr> <tr> <td>300 ml</td> <td>1,500 ml or 1.5 litres</td> </tr> <tr> <td>6 litres</td> <td>30 litres</td> </tr> <tr> <td>150 ml</td> <td>750 ml</td> </tr> </tbody> </table> <p>b) juice 250 ml, water 1,250 ml</p>	Juice	Water	1 litre	5 litres	2 litres	10 litres	4 litres	20 litres	100 ml	500 ml	200 ml	1,000 ml or 1 litre	300 ml	1,500 ml or 1.5 litres	6 litres	30 litres	150 ml	750 ml
Juice	Water																		
1 litre	5 litres																		
2 litres	10 litres																		
4 litres	20 litres																		
100 ml	500 ml																		
200 ml	1,000 ml or 1 litre																		
300 ml	1,500 ml or 1.5 litres																		
6 litres	30 litres																		
150 ml	750 ml																		
7	<p>a) German</p> <p>b) multiple possible answers, e.g.:</p> <p style="margin-left: 40px;"> French German </p>  <p>c) 32</p>																		

Y6 - Spring - Block 6 - Step 4 - Calculating ratio Answers (continued)

Question	Answer
8	multiple possible answers, e.g.: a) There are 28 students in a class. The ratio of girls to boys is 4 : 3 b) There are 28 girls in a year. The ratio of girls to boys is 4 : 3 c) There are 28 more girls than boys in a year. The ratio of girls to boys is 4 : 3 The numbers will be the same, but the context will be different.

Question	Answer
1	<p>a) </p> <p>b) </p>
2	<p>a) The lengths of all the sides are multiplied by 2</p> <p>b) </p>
3	<p>A shape in which each side has tripled in size has been enlarged by a scale factor of 3</p>
4	<p>a)  4.2 cm 2.8 cm</p> <p>b) child's labelled drawing of a rectangle with a length of 12.6 cm and a width of 8.4 cm</p>
5	<p>32 cm</p>
6	
7	<p>perimeter of A = 44 km perimeter of B = 220 km</p>

Y6 – Spring – Block 6 – Step 6 – Calculating scale factors Answers

Question	Answer
1	Shape B is an enlargement, by a scale factor of 3 , of shape A. Shape C is an enlargement, by a scale factor of 2 , of shape A. Shape D is an enlargement, by a scale factor of 2 , of shape A.
2	In shape B, all the sides have been multiplied by 2 In shape C, only the height has changed. The top and bottom lengths are the same as in shape A.
3	 <p>All the sides have been multiplied by the same number.</p>
4	$a = 21 \text{ cm}$
5	10 cm^2
6	$y = 4.5 \text{ cm}$
7	4
8	$a = 7 \text{ mm}$ $b = 59^\circ$ $c = 31^\circ$ $d = 31.5 \text{ mm}$

Y6 – Spring – Block 6 – Step 7 – Ratio and proportion problems Answers

Question	Answer
1	a) £6 b) £1.50 c) £7.50
2	a) For every 3 red grapes there is 1 green grape. b) 24
3	a) butter 40 g sugar 24 g plain flour 60 g chocolate chips 20 g b) butter 200 g sugar 120 g plain flour 300 g chocolate chips 100 g c) 24
4	£3.30
5	720 ml
6	Shop A multiple possible explanations, e.g.: Shop A: 250 g of cornflakes costs £1.05 Shop B: 250 g of cornflakes costs £1.10
7	8 cm ²
8	20

Y6 – Spring – Block 6 – Ratio and proportion problems (1) Answers

Question	Answer
1	£2.08
2	a) 600 b) 1,800
3	a) 12 b) 4.5 c) 12
4	1.2 kg
5	14 Before Amir removes the counters: <ul style="list-style-type: none">• there are 21 more red counters than green counters• the ratio of red counters to green counters is 5 : 2 $5 - 2 = 3$ parts = 21, so 1 part = 7 $2 \times 7 = 14$
6	a) 5 b) 20
7	a) 8 b) 12
8	36 cm
9	£3.30