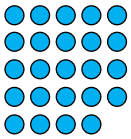
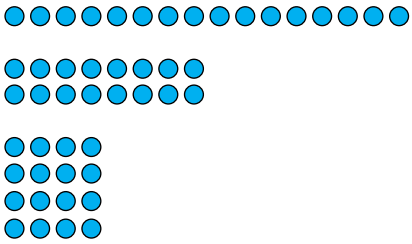
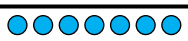
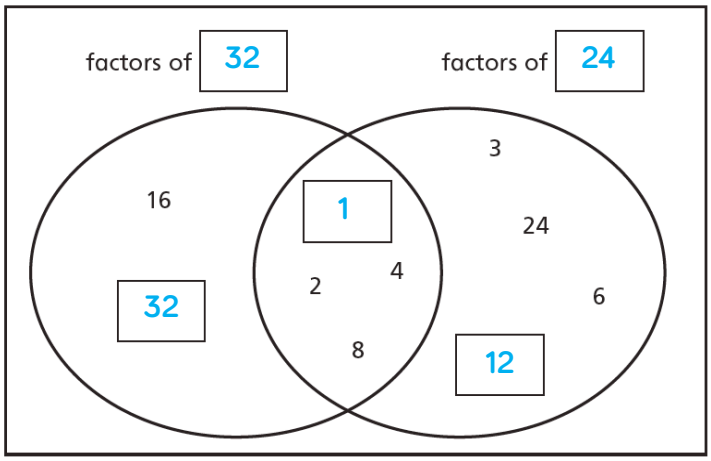
Y7 – Spring – Block 2 – Step 1 – Properties of multiplication and division Answers

<table>
<tr><th>Question</th><th>Answer</th></tr>
<tr><td>1</td><td>a) $4 \times 3 = 12$
$3 \times 4 = 12$
b) $12 \div 4 = 3$
$12 \div 3 = 4$
c) other possible arrays: 1×12, 2×6, 3×4, 6×2, 12×1
d) fact family for student's array in part c)
e) Swap the number of rows and columns, e.g. change a 2×6 to a 6×2
The answer is still the same.</td></tr>
<tr><td>2</td><td>$5 \times 8 = 40$
$8 \times 5 = 40$
$40 \div 5 = 8$
$40 \div 8 = 5$
No.
Division is not commutative. The order of the numbers makes a difference to the answer.</td></tr>
<tr><td>3</td><td>
<table>
<tr><th>Statement</th><th>True or False</th></tr>
<tr><td>(5 × 2) × 3 = 5 × (2 × 3)</td><td>true</td></tr>
<tr><td>5 × 2 × 3 = 2 × 3 × 5</td><td>true</td></tr>
<tr><td>3 × 10 = 3 × 2 × 5</td><td>true</td></tr>
</table>
$(5 \times 2) \times 3 = 5 \times (2 \times 3)$ The order in which pairs of numbers are multiplied makes no difference.
$5 \times 2 \times 3 = 2 \times 3 \times 5$ The order of the numbers makes no difference.
$3 \times 10 = 3 \times 2 \times 5$ It does not matter which pair of numbers are multiplied first, and $2 \times 5 = 10$</td></tr>
<tr><td>4</td><td>$(a \times b) \times c = a \times (b \times c)$
Multiplication is associative, so the order in which pairs of numbers are multiplied makes no difference.
$g \times m \times b = b \times m \times g$
Multiplication is commutative, so the order of the numbers makes no difference.</td></tr>
<tr><td>5</td><td>
<table>
<tr><td colspan="7">e</td></tr>
<tr><td>d</td><td>d</td><td>d</td><td>d</td><td>d</td><td>d</td><td>d</td></tr>
</table>
$d + d + d + d + d + d + d = e$
$d = \frac{e}{7}$
$\frac{e}{d} = 7$</td></tr>
<tr><td>6</td><td>a) 84
b) 52
c) 116
Double again, so double three times.</td></tr>
</table>

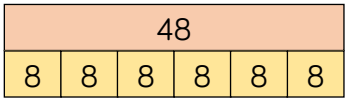
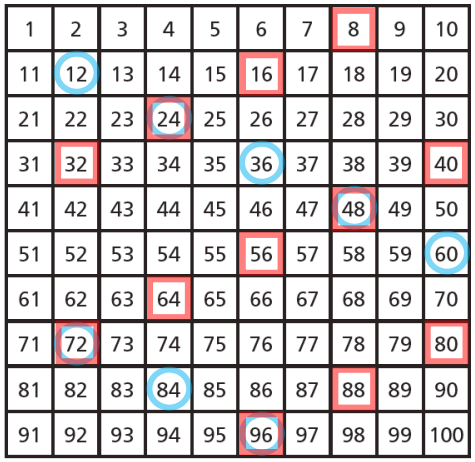
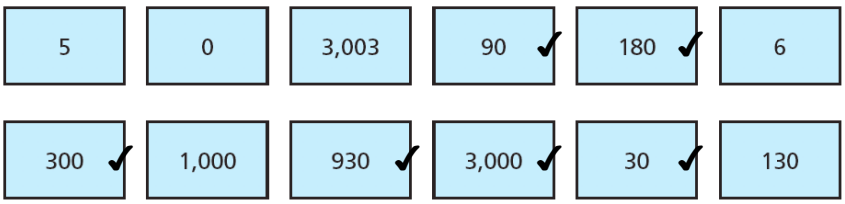
Question	Answer
7	A ÷ 10 then × 2 ☑ C × 2 then ÷ 10 ☑ B ÷ 10 then ÷ 2 ☐ D ÷ 2 then × 10 ☐ Students may choose a different method from those given below. 120 ÷ 5 = 24 method A 14 ÷ 5 = 2.8 method C 4.8 ÷ 5 = 0.96 method C Students need to justify why they prefer one method over the other.
8	46 ÷ 3 = 598 ; 46 ÷ 598 = 13 ; 598 = 46 × 13 ✓ 13 ÷ 598 = 46 ; 598 ÷ 46 = 13 ✓ ; 598 ÷ 13 = 46 ✓ 46 = 13 ÷ 598 ; 598 = 13 × 46 ✓ ; 13 = 598 ÷ 46 ✓ If students get different answers, they need to justify their answers to their partner.

Y7 – Spring – Block 2 – Step 2 – Understand and use factors Answers

Question	Answer
1	a) all factors: 1, 2, 3, 4, 6, 8, 12, 24 b)  Arranging counters in rows of 5 does not give a complete number of rows, so 5 is not a factor of 24
2	a)  The first two arrays could be shown with the columns and rows transposed, i.e. turned through 90°. b) 1, 2, 4, 8, 16
3	a)  b) It is a prime number.
4	1 and 20 2 and 10 4 and 5 No. Since 5 is a factor pair with 4, when continuing through the numbers above 4, the factor pair has already been found.
5	a) 1, 5, 25 b) 1, 2, 3, 6, 9, 18 c) 1, 2, 3, 5, 6, 10, 15, 30
6	No. Factors must be integers.
7	No. There are other factor pairs: 3 and 20, 5, and 12, 6 and 10

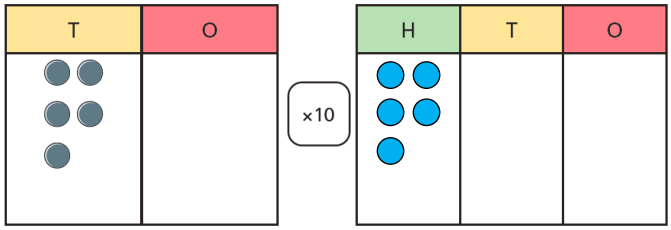
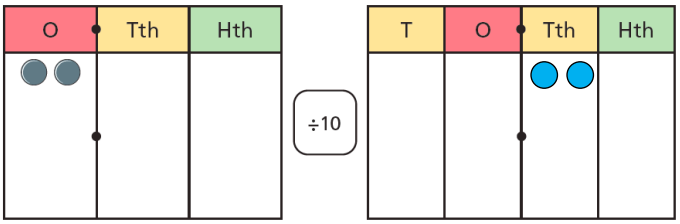
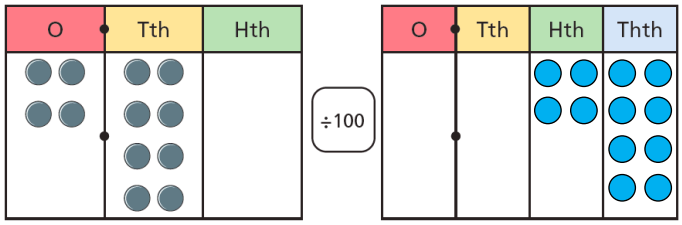
Question	Answer
8	a)  b) 1, 2, 4, 8 c) 8
9	a) The common factors of 15 and 35 are 1, 5 The highest common factor is 5 b) The common factors of 100 and 40 are 1, 2, 4, 5, 10, 20 The highest common factor is 20 c) The common factors of 48 and 32 are 1, 2, 4, 8, 16 The highest common factor is 16

Y7 – Spring – Block 2 – Step 3 – Understand and use multiples Answers

Question	Answer
1	a) It shows that $5 \times 7 = 35$ b) multiple possible answers, e.g.: 7, 21, 42 c) multiple possible answers, e.g.: 7,000 d) 7 is not a factor of 40
2	
3	multiple possible answers, e.g. a) 5, 10, 15, 20, 25 b) 22, 66, 77, 99, 110 c) 17, 34, 51, 85, 170
4	a), b)  c) 24, 48, 72, 96 They are the numbers that have both a circle and a square in the hundred square. d) 24
5	a) 20 b) 30 c) 63 d) 18
6	
7	510, 525, 540

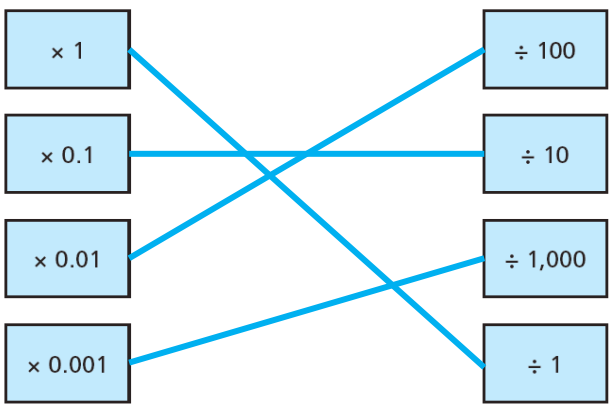
Question	Answer
8	They are both right. For any number, the number itself is both a factor and a multiple.
9	7 and 9 ✓ 10 and 8 12 and 4 6 and 8
10	60 5 is a factor of 20, so any common multiple of 3 and 20 will also be a common multiple of 3, 5 and 20 So find a common multiple of 3 and 20

Y7 – Spring – Block 2 – Step 4 – Multiply and divide by powers of 10 Answers

Question	Answer
1	a)  $50 \times 10 = 500$ b)  $2 \div 10 = 0.2$ c)  $4.8 \div 100 = 0.048$
2	$351 \div 1{,}000 = 0.351$ The digits have all moved three places to the right.
3	• The digits move one place to the left. • The digits move two places to the right. • The digits move three places to the left.
4	a) 230 2,300 23,000 b) 14.2 142 1,420 14,200 c) 49 4.9 0.49 d) 7.8 0.78 0.078 0.708

Question	Answer
5	a) 56,000 b) 0.0048 c) 0.0152 d) 230 e) 304.3 f) 48.9 g) 1,700 h) 0.0461
6	a) 10 b) 240.4 c) 0.0008 d) 1,056,000 e) 100
7	a) $x = 1{,}080$ b) $h = 1{,}000$ c) $k = 9.46$ d) $y = 1{,}040$
8	She has added two zeros to the number instead of moving the digits two places to the left.
9	B is a multiple of 5 **always true** B < C **never true** B > C **always true** B ÷ C is an integer **always true** C ÷ B is an integer **never true** B is 10 times smaller than C **never true**

Y7 – Spring – Block 2 – Step 5 – Multiply by 0.1 and 0.01 (H) Answers

Question	Answer
1	a) $87 \times 0.1 = 87 \times \frac{1}{10} = 87 \div 10 = 8.7$ b) $8.07 \times 0.1 = 8.07 \times \frac{1}{10} = 8.07 \div 10 = 0.807$ c) $870 \times 0.1 = 870 \times \frac{1}{10} = 870 \div 10 = 87$ d) $0.807 \times 0.1 = 0.807 \times \frac{1}{10} = 0.807 \div 10 = 0.0807$
2	0.1 is equivalent to $\frac{1}{10}$
3	a) $53 \times 0.01 = 53 \times \frac{1}{100} = 53 \div 100 = 0.53$ b) $530 \times 0.01 = 530 \times \frac{1}{100} = 530 \div 100 = 5.3$ c) $503 \times 0.01 = 503 \times \frac{1}{100} = 503 \div 100 = 5.03$ d) $0.53 \times 0.01 = 0.53 \times \frac{1}{100} = 0.53 \div 100 = 0.0053$
4	0.01 is equivalent to $\frac{1}{100}$ and multiplying by $\frac{1}{100}$ is the same as dividing by 100
5	Yes. multiple possible examples, e.g.: $7 \times 0.1 = 0.7$ $0.7 \times 0.1 = 0.07$ $7 \times 0.01 = 0.07$ Students can check each other's examples.
6	
7	a) 82.7 b) 0.32 c) 0.301 d) 50.6 e) 0.007 f) 0.208 g) 4.89 h) 0.0047 i) 0.01 j) 0.0001

Question	Answer
8	38 30.8 3.8 3.08
9	a) any number × 1 b) Yes. Multiplication by a number greater than 1 makes a number greater, e.g. 7 × 10 = 70 Multiplication by a number less than 1 makes a number smaller, e.g. 7 × 0.1 = 0.7 Students can check each other's examples.
10	a) 0.1 b) 0.01 c) 0.1 d) 0.01 e) 0.1 f) 0.006

Y7 – Spring – Block 2 – Step 6 – Convert metric units Answers

<table>
<tr><th>Question</th><th>Answer</th></tr>
<tr><td>1</td><td>
a)
<table>
<tr><td>1 m</td><td>1 m</td><td>1 m</td><td>1 m</td><td>1 m</td></tr>
<tr><td>100 cm</td><td>100 cm</td><td>100 cm</td><td>100 cm</td><td>100 cm</td></tr>
</table>
5 m = 500 cm
b)
<table>
<tr><td>1 kg</td><td>1 kg</td><td>1 kg</td><td>1 kg</td><td>1 kg</td><td>1 kg</td></tr>
<tr><td>1,000 g</td><td>1,000 g</td><td>1,000 g</td><td>1,000 g</td><td>1,000 g</td><td>1,000 g</td></tr>
</table>
6 kg = 6,000 g
c)
<table>
<tr><td>1 km</td><td>1 km</td><td>1 km</td><td>0.5 km</td></tr>
<tr><td>1,000 m</td><td>1,000 m</td><td>1,000 m</td><td>500 m</td></tr>
</table>
3.5 km = 3,500 m
d)
<table>
<tr><td>10 mm</td><td>10 mm</td><td>10 mm</td><td>10 mm</td><td>10 mm</td><td>10 mm</td><td>10 mm</td><td>10 mm</td></tr>
<tr><td>1 cm</td><td>1 cm</td><td>1 cm</td><td>1 cm</td><td>1 cm</td><td>1 cm</td><td>1 cm</td><td>1 cm</td></tr>
</table>
80 mm = 8 cm
e)
<table>
<tr><td>1 m</td><td>1 m</td><td>0.5 m</td></tr>
<tr><td>100 cm</td><td>100 cm</td><td>50 cm</td></tr>
<tr><td>1,000 mm</td><td>1,000 mm</td><td>500 mm</td></tr>
</table>
2.5 m = 2,500 mm
f)
<table>
<tr><td>1,000 ml</td><td>1,000 ml</td><td>1,000 ml</td><td>1,000 ml</td><td>250 ml</td></tr>
<tr><td>1 l</td><td>1 l</td><td>1 l</td><td>1 l</td><td>0.25 l</td></tr>
</table>
4,250 ml = 4.25 l
</td></tr>
<tr><td>2</td><td>
a) 4,500 g
b) 0.3 m
c) 2,500 ml
</td></tr>
<tr><td>3</td><td>
a) 5 m = 500 cm
5.5 m = 550 cm
5.7 m = 570 cm
5.07 m = 507 cm
15.7 m = 1,570 cm
b) 300 cm = 3 m
350 cm = 3.5 m
370 cm = 3.7 m
307 cm = 3.07 m
1,300 cm = 13 m
</td></tr>
</table>

Y7 – Spring – Block 2 – Step 6 – Convert metric units Answers (continued)

Question	Answer
4	a) 2,000 g 3,200 g 3,020 g b) 5,000 ml 8,400 ml 350 ml 1,350 ml c) 2 km 2.8 km 12 km d) 5.2 kg 5.28 kg 5.285 kg 0.285 kg
5	a) 12 glasses b) 0.15 l
6	1.82 m
7	3.35 km or 3,350 m

Y7 – Spring – Block 2 – Step 7 – Formal methods: multiply integers Answers

Question	Answer
1	a) **Method 1** × | 200 | 90 | 3 7 | 1,400 | 630 | 21 1,400 + 630 + 21 = 2,051 **Method 2** 2 9 3 × 7 2 0 5 1 6 2 **Method 3** 2 9 3 2 9 3 2 9 3 2 9 3 2 9 3 2 9 3 + 2 9 3 2 0 5 1 6 2 b) Students need to justify why they prefer one method to the others. c) method 3
2	a) 72 b) 1,085 c) 1,256 kg d) £7,050
3	448
4	a) × | 300 | 20 | 6 40 | 1,200 | 800 | 240 7 | 2,100 | 140 | 42 1,200 + 2,100 + 800 + 140 + 240 + 42 = 4,522 b) 15,322
5	a) 48 × 32 = 1,536 × | 40 | 8 30 | 1,200 | 240 2 | 80 | 16 b) 137 × 26 = 3,562 × | 100 | 30 | 7 20 | 2,000 | 600 | 140 6 | 600 | 180 | 42
6	a) 2,226 b) 11,206 c) 15,048 d) 13,478 e) 11,410 f) 180,681
7	a) 718 has been multiplied by the digit 2 instead of 20 b) Replace the second line with 718 × 20 = 14,360

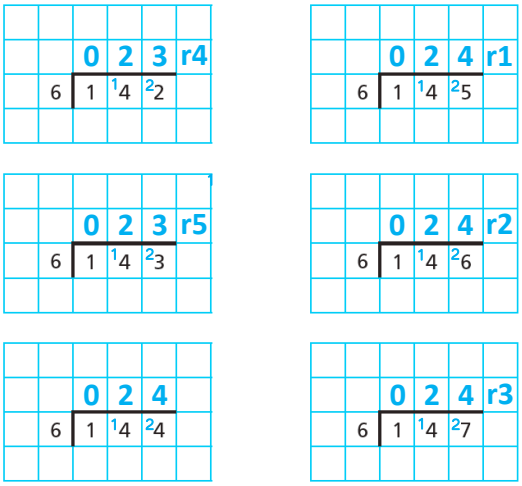
Y7 – Spring – Block 2 – Step 8 – Formal methods: multiply decimals Answers

Question	Answer
1	a) 7.2 b) $14.2 \times 4 = 56.8$ $3.21 \times 5 = 16.05$ $5.73 \times 2 = 11.46$
2	a) 266 b) $3.8 \times 7 = 26.6$ $3.8 \times 70 = 266$ $380 \times 0.07 = 26.6$ $3.8 \times 0.7 = 2.66$ $3.8 \times 0.07 = 0.266$ $0.38 \times 7 = 2.66$ c) Use the relationship between the numbers in the multiplication and in 38×7 to work out the power of 10 to multiply or divide by.
3	Multiply by 0.1 or divide by 10 $1.7 = 17 \times 0.1$, so $1.7 \times 28 = 17 \times 0.1 \times 28 = 47.6$
4	a) No. She needs to divide by 10 for each number in the calculation, so she needs to divide the product by 100 b) $0.3 \times 2 = 0.6$ $0.3 \times 0.2 = 0.06$ $0.3 \times 5 = 1.5$ $0.3 \times 0.6 = 0.18$ $0.3 \times 3 = 0.9$ $0.3 \times 0.3 = 0.09$ $0.3 \times 0.5 = 0.15$ $0.6 \times 0.03 = 0.018$
5	a) estimate: 80 answer: 81.9 b) estimate: 3.6 answer: 3.42 c) estimate: 3.2 answer: 3.486 d) estimate: 36 answer: 35.583
6	$72.3 \times 8.4 = 607.32$ $84{,}000 \times 7.23 = 607{,}320$ $723 \times 0.84 = 607.32$ $6.0732 = 0.723 \times 8.4$
7	£11.93

Y7 – Spring – Block 2 – Step 7 – Formal methods: multiply decimals Answers (continued)

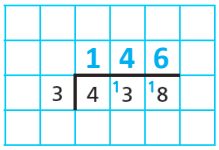
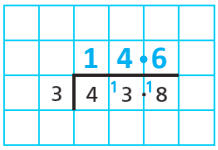
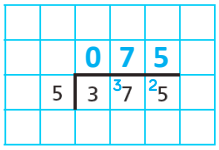
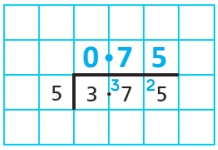
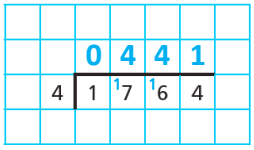
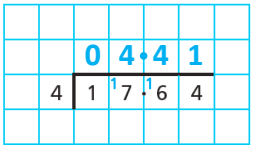
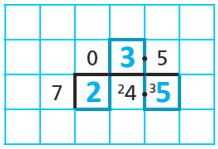
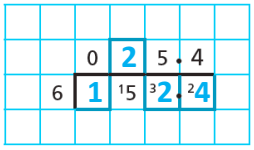
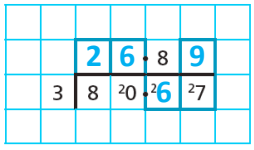
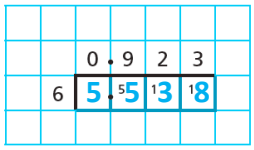
Question	Answer
8	2nd term = 10.6 3rd term = 34.92

Y7 – Spring – Block 2 – Step 9 – Formal methods: divide integers Answers

Question	Answer
1	 All the numbers are being divided by 6 The number being divided by 6 goes up by 1 each time, so some of the divisions have a remainder and one does not.
2	a) 248 does not end in 0 or 5, so 248 is not exactly divisible by 5 b) 49 r3 49.6 $49\frac{3}{5}$
3	a) Teddy has written 3 instead of 1 in front of the 7 b) 44
4	a) 178 b) 71 c) 135.2 d) 165.5 e) 128.25 f) 114.75
5	a) 12.143 b) 12.143
6	a) 28.75 b) 3 and 4 They are a factor pair of 12
7	a) 58 b) 26.25
8	a) $g = 41.75$ b) $w = 61.25$

Question	Answer
9	122 cm Either: divide 924 by 28 to find the length of the larger rectangle or divide 924 by 4 and then by 14 to find the length of a smaller rectangle, and then multiply this length by 2 for the length of the larger rectangle

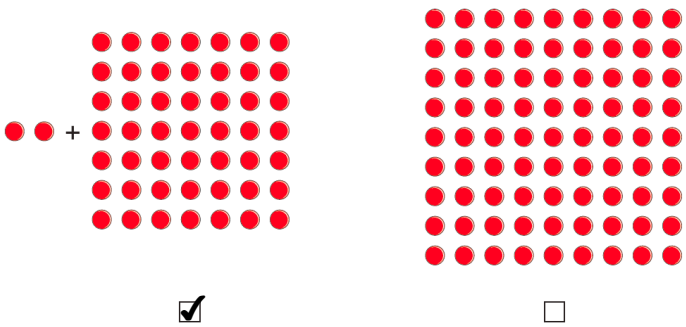
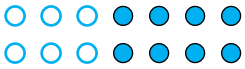
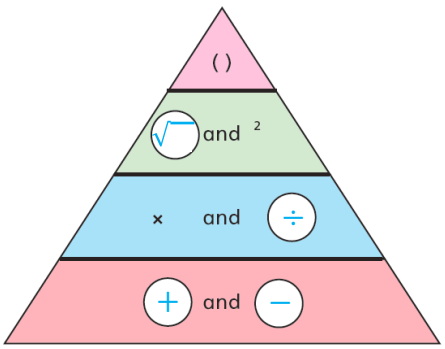
Y7 – Spring – Block 2 – Step 10 – Formal methods: divide decimals Answers

Question	Answer
1	a) $14 \div 5 = 2.8$ $1.4 \div 5 = 0.28$ b) Both numbers are being divided by 5 In the right-hand division, the number being divided by is a decimal. It is 10 times smaller than the number in the left-hand division, and the answer is also 10 times smaller.
2	a)   b)   c)  
3	a)  b)  c)  d) 
4	The decimal point in the answer has been put in the wrong place. It should be in line with the decimal point below. correct answer: 12.06
5	a) 0.123 b) 2.36 c) 1.19 d) 1.646 e) 90.4 f) 18.25

Y7 – Spring – Block 2 – Step 10 – Formal methods: divide decimals Answers (continued)

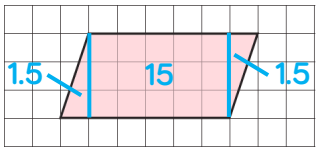
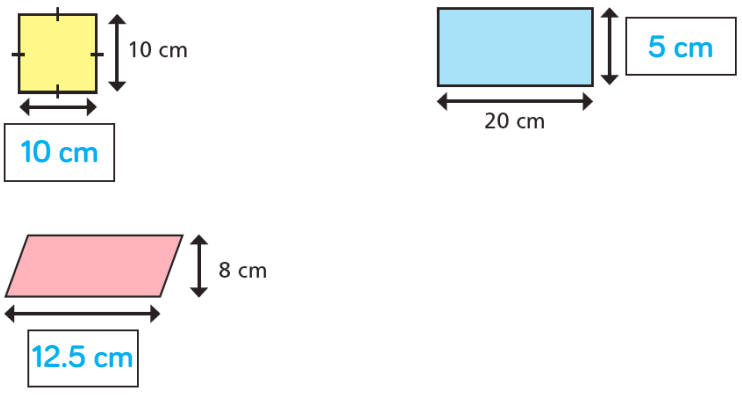
Question	Answer
6	a) 14.3 b) 5.206 c) 15.26
7	a) $f = 3.3$ b) $v = 4.248$
8	3.45 kg
9	40.92 cm
10	£16.72 per child

Y7 – Spring – Block 2 – Step 11 – Order of operations Answers

Question	Answer
1	a) The first array is 6 counters and the second array is 2 by 4 counters. b) 14 c) 2×4
2	a)  ☑ ☐ b) 
3	a)  b) It does not make any difference to the final answer which order multiplication and division are done in.
4	a) $4 + 3 \times 5 = 19$ b) $12 \div 4 + 2 = 5$ c) $7 + 3^2 \ v = 25$ d) $(4 + 3) \times 5 = 35$ e) $9 \times \sqrt{16} \div 2 = 18$ f) $36 \div 12 \div 3 = 1$ (does not matter which part of the calculation is done first)
5	a) $11 + 2$ has been worked out first. 17 b) The operations have been worked out from left to right, so the $+ 2$ has been done before the $\times 3$ 14 c) $12 \div 2$ has been worked out before 2^2 9
6	She has not noticed that the 5 has a minus sign, so that part of the calculation should have been $-5 + 2 = -3$ Since all the operations are $+$ and $-$, she should have just worked from left to right. correct answer: 0

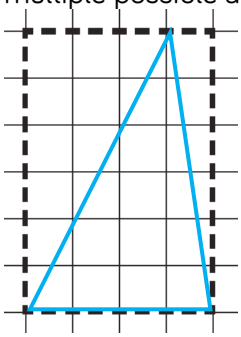
Question	Answer
7	a) 44 b) 1
8	a) $(4 + 7) \times 2 - 7 = 15$ b) $(5 + 3) \times (4 + 2) = 48$ c) $3 \times (25 - 13) + 4 = 40$ d) $5 + 3 \times (4 + 2) = 23$
9	243 Work out $3 \times (14 + 67)$
10	$1 + 2 + 3 + 4 + 5 + 6 + 7 + 8 \times 9 = 100$ or $1 \times 2 \times 3 + 4 + 5 + 6 + 7 + 8 \times 9 = 100$

Y7 – Spring – Block 2 – Step 12 – Area of rectangles and parallelograms Answers

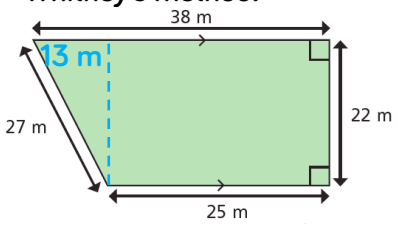
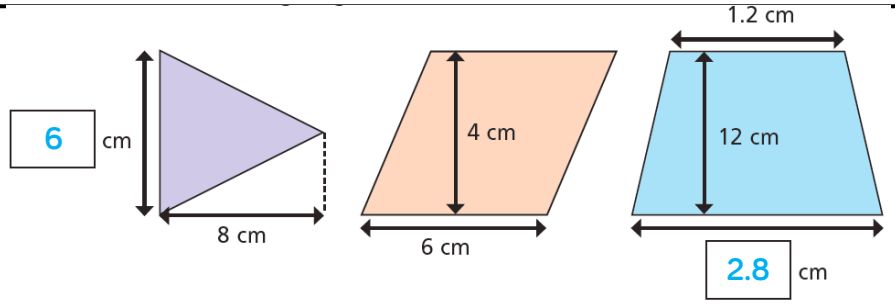
Question	Answer
1	a) 12 cm^2 b) 10 cm^2 c) 10 cm^2 d) 10.5 cm^2
2	
3	a) 30 cm^2 b) 30 cm^2 c) Both parallelograms have height 3 cm and base length of 10 cm. The slope of the other two sides is different between the parallelograms. base × height
4	a) 168 cm^2 b) 688 mm^2
5	
6	a) 84 m^2 b) 162 mm^2 c) 15 cm^2 d) 901 km^2
7	
8	36 × 18 = 648 cm^2 27 × 24 = 648 cm^2

Length	8 m	12 m	6 m	10 m	16 m	20 m
Width	3 m	2 m	4 m	2.4 m	1.5 m	120 cm

Y7 – Spring – Block 2 – Step 13 – Area of triangles Answers

Question	Answer
1	a) 12 cm^2 12 cm^2 12 cm^2 b) All the areas are the same, because the bases are the same and the heights are the same. c) multiple possible answers, e.g.: 
2	a) **28 cm^2** **21 cm^2** **10.5 cm^2** **56 cm^2** b) 28 cm^2: used the slope length of 4 cm instead of the perpendicular height of 1.5 cm. 21 cm^2: forgot to multiply by $\frac{1}{2}$ 56 cm^2: used the slope length of 4 cm instead of the perpendicular height of 1.5 cm **and** forgot to multiply by $\frac{1}{2}$
3	a) 184 cm^2 b) 272 mm^2 c) 60 m^2 d) 174 cm^2
4	$x = 10$ cm
5	$b = 14.72$ cm
6	$\frac{7}{11}$
7	40 cm^2
8	Work out $\frac{1}{2}$ × base × height, using the base of 100 m and perpendicular height of 21 m. area = 1,050 m^2

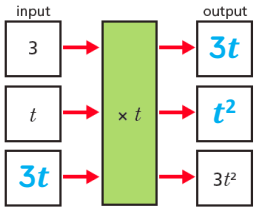
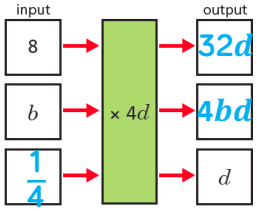
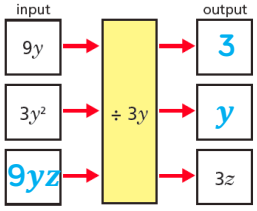
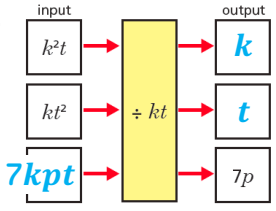
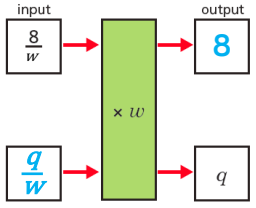
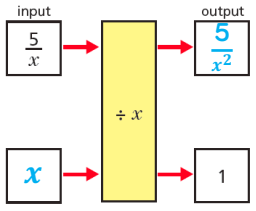
Y7 – Spring – Block 2 – Step 14 – Area of a trapezium (H) Answers

Question	Answer
1	The two trapezia form a parallelogram with base $a + b$ and height h. The area of the parallelogram is $(a + b)h$, so the area of one trapezium is $\frac{1}{2}(a + b)h$.
2	**a) Whitney's method:**  area of rectangle $= 25 \times 22 = 550$ m^2 area of triangle $= \frac{1}{2} \times 13 \times 22 = 143$ m^2 area of trapezium $= 550 + 143 = 693$ m^2 **Amir's method:** area of trapezium $= \frac{1}{2} \times (25 + 38) \times 22 = 693$ m^2 b) Students need to justify why they prefer one method over the other.
3	a) 135 mm^2 b) 35 cm^2 c) 759 m^2 d) 300 cm^2 e) 15 km^2 f) 11,645 mm^2
4	multiple possible answers with $a + b = 8$, e.g: $a = 5$ cm, $b = 3$ cm $a = 6$ cm, $b = 2$ cm $a = 6.5$ cm, $b = 1.5$ cm
5	
6	159.75 m^2
7	3.84 m^2

Y7 – Spring – Block 2 – Step 15 – Solve problems involving the mean Answers

Question	Answer
1	8 cubes
2	a) 5 b) 6.5
3	5.4 kg
4	11,287.5 number of spectators
5	Dani has 2 cubes.
6	a) 1 b) 3.3
7	a) 19.2°C b) The mean will be lower, because 15°C is lower than the mean for the previous 5 days. c) 18.5°C
8	The mean will increase, because the number of visitors in the 6th week is higher than the mean for the previous 5 weeks.
9	multiple possible answers, e.g.: a) 10, 11, 12, 13, 14 b) 4, 4.1, 4.3, 4.4 c) 4, 6, 14 Students may have worked out the total of all the numbers from the mean and number of numbers.
10	a) 11, 12, 12, 13, 13, 13, 14, 14, 14, 14 b) 13 years Multiply each age by the frequency for that age, and add these four values. Then divide this total by the sum of all the frequencies.

Y7 – Spring – Block 2 – Step 16 – Multiplication and division with algebra (H) Answers

Question	Answer
1	a)  b)  c)  d)  e)  f) 
2	a) 15 $15a$ $15a$ $15a^2$ $15ab$ b) $3xy$ $3y$ 18 6 $6x$

<table>
<tr><th>Question</th><th>Answer</th></tr>
<tr><td>3</td><td>multiple possible answers, e.g.
<table>
<tr><td>Length</td><td>$8ab$</td><td>$8a$</td><td>$8b$</td><td>8</td><td>$4a$</td></tr>
<tr><td>Width</td><td>1</td><td>b</td><td>a</td><td>ab</td><td>$2b$</td></tr>
</table>
Students could have identified the factor pairs of 8 to find the possible coefficients.
Some students may also have used fractions, e.g. $16a$ and $\frac{b}{2}$ or $4a^2$ and $\frac{2b}{a}$.</td></tr>
<tr><td>4</td><td>
<table>
<tr><th>Group 1</th><th>Group 2</th><th>Group 3</th></tr>
<tr><td>$24g + 0g$
$12g + 12g$
$\frac{24g^2}{g}$
$3g \times 8$</td><td>$48g^3 \div 2g$
$2g \times 12g$
$24g^2$
$8g \times 3 \times g$</td><td>$8g^3 + 8g \times 2g^2$
$\frac{48g^3}{2}$
$24g^3$
$g \times 4g \times 6g$</td></tr>
</table>
</td></tr>
<tr><td>5</td><td>multiple possible answers, e.g.:
<table>
<tr><th>Base</th><th>Perpendicular height</th></tr>
<tr><td>$3p$</td><td>$2p$</td></tr>
<tr><td>$6p$</td><td>p</td></tr>
<tr><td>p^2</td><td>6</td></tr>
<tr><td>$3p^2$</td><td>2</td></tr>
</table>
</td></tr>
<tr><td>6</td><td>a) $\frac{3w}{r}$ $w^3 - r^2$ $\frac{2}{5}r$ $3w(r - 8)$
b) multiple possible answers, e.g.:
$w = 100, r = 1$</td></tr>
<tr><td>7</td><td>Any terms can be multiplied: $2b \times 5c = 2 \times 5 \times b \times c = 10bc$
Only like terms can be added or subtracted: $2b$ and $5c$ are not like terms so cannot be added.</td></tr>
</table>