

# Independent Recap

Measures  
Week 9

Year 6

## Arithmetic

1.  $523,493 + 34,294$

2.  $374 \times 98$

3.  $\frac{2}{7} + \frac{1}{3}$

4. 28% of 370

## Practice: Area and Perimeter

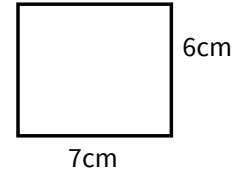
5. Recap: Define the terms:

Area

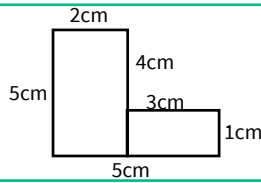
Perimeter



6. Calculate the perimeter of this rectangle.



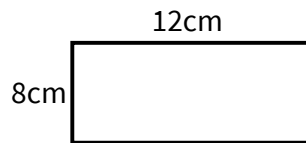
7. Calculate the perimeter of this shape.



8. Calculate the perimeter of this square.

Area =  $49\text{cm}^2$

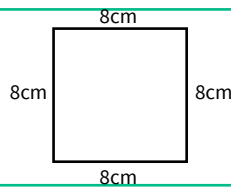
9. Calculate the area of this rectangle.



10. Write a formula for finding the perimeter and area of a rectangle.



11. Calculate the area of this shape.



12. Calculate the area of this square.

Perimeter = 40cm

13. Lee has drawn a square with the perimeter of 24cm. He says the area is  $12\text{cm}^2$ . Is Lee correct? Explain.



Challenge

14. Draw 3 different shapes with the same area but different perimeters.

Draw 3 shapes with the same perimeter but different areas.



You might want to talk to an adult



Spot the mistake

## Answers

Q no.	Question	Answer
1	$523,493 + 34,294$	557,787
2	$374 \times 98$	36,652
3	$\frac{2}{7} + \frac{1}{3}$	$\frac{13}{21}$
4	28% of 370	103.6
5	Define the terms: Area, Perimeter	Area is the amount of space occupied by a 2D shape. Perimeter is the distance around the edge of a shape.
6	Calculate the perimeter of this shape.	26cm
7	Calculate the perimeter of this shape.	20cm
8	Calculate the perimeter of this shape.	28cm
9	Calculate the area of this shape.	$96\text{cm}^2$
10	Write a formula for finding the perimeter and area of a rectangle.	Perimeter - $2l + 2h$ Area - $l \times h$ $l = \text{length}$ and $h = \text{height}$
11	Calculate the area of this shape.	$64\text{cm}^2$
12	Calculate the area of this shape.	$100\text{cm}^2$
13	Is Lee correct? Explain.	Lee has added the length and the width (6cm and 6cm) instead of multiplying the length and width. The correct answer is $36\text{cm}^2$ .
14	Draw 3 different shapes with the same area but different perimeters.  Draw 3 shapes with the same perimeter but different areas.	Accept answers that show six shapes that meet the criteria stated.

# Arithmetic


1.  $75,473 - 42,288$

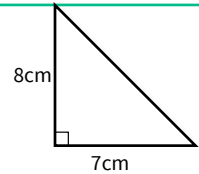
2.  $6,164 \div 92$

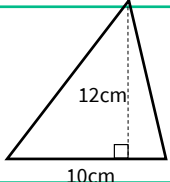
3.  $\frac{9}{10} - \frac{1}{4}$

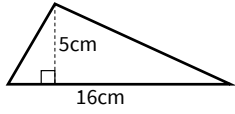
4. 46% of 700

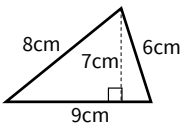
## Practice: Area of a Triangle


5. Recap: Write a formula for finding the area of a triangle. 

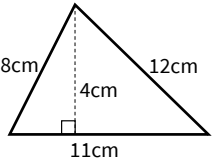
6. Calculate the area of this triangle. 

7. Calculate the area of this triangle. 

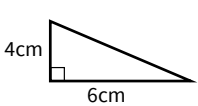

8. Calculate the area of this triangle. 

9. Calculate the area of this triangle. 

10. Explain how you can use the measures of rectangle or square to help find the area of a right-angle triangle. 

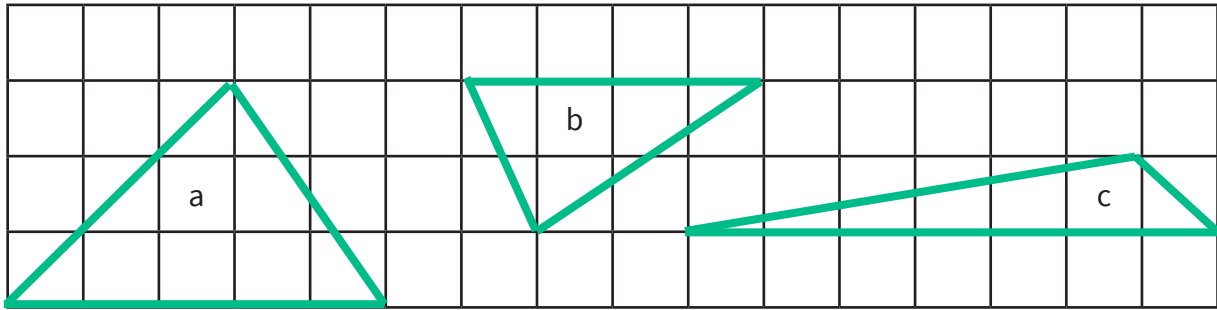
11. Calculate the area of this triangle. 


12. A triangle has an area of  $36\text{cm}^2$ . If its height is... what is its base?  
 a) 12cm                      b) 4cm                      c) 3cm


13. Simona says the triangle has an area of  $24\text{cm}^2$ . Is she correct? Explain.  

Challenge

14. Calculate the area of each triangle. Explain how you have calculated the areas.



 You might want to talk to an adult

 Spot the mistake

## Answers

Q no.	Question	Answer
1	$75,473 - 42,288$	33,185
2	$6,164 \div 92$	67
3	$\frac{9}{10} - \frac{1}{4}$	$\frac{13}{20}$
4	46% of 700	322
5	Write a formula for finding the area of a triangle.	base x height divided by 2 = area of a triangle
6	Calculate the area of this triangle.	$28\text{cm}^2$
7	Calculate the area of this triangle.	$60\text{cm}^2$
8	Calculate the area of this triangle.	$40\text{cm}^2$
9	Calculate the area of this triangle.	$31.5\text{cm}^2$
10	Explain how you can use the measures of rectangle or square to help find the area of a right-angle triangle.	Two right angle triangles can be created from one rectangle. The base of a right angle triangle becomes the length of the rectangle and the height of the triangle is the height of the rectangle.
11	Calculate the area of this triangle.	$22\text{cm}^2$
12	A triangle has an area of $36\text{cm}^2$ . If its height is... what is its base?	a) 6cm b) 18cm c) 24cm
13	Is she correct? Explain.	Simona is incorrect. She has calculated the base x the height but has not divided the answer by 2. The correct answer is $12\text{cm}^2$ .
14	Calculate the area of each triangle. Explain how you have calculated the areas.	a. $7.5\text{cm}^2$ b. $4\text{cm}^2$ c. $3.5\text{cm}^2$  Pupils could count the squares to find the area or they could split the triangle to make a right angle triangle and the height then use this information to calculate the area of each triangle. Alternatively, pupils may create rectangles using the base and height of the triangles and divide the area of the rectangle by two.

## Arithmetic

1.  $84,573 + 98,554$

2.  $2,304 \times 73$

3.  $\frac{4}{5} \times \frac{7}{8}$

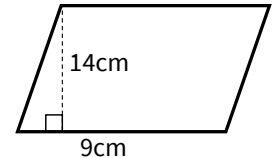
4. 19% of 4,500

## Practice: Area of a Parallelogram

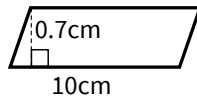
5. Recap: Write a formula to find the area of a parallelogram.



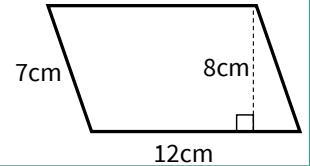
6. Calculate the area of this parallelogram.



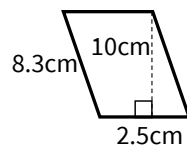
7. Calculate the area of this parallelogram.



8. Calculate the area of this parallelogram.



9. Calculate the area of this parallelogram.



10. Explain the link between the area of a parallelogram and a rectangle.



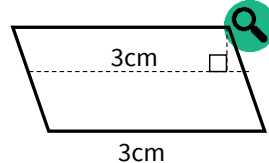
11. A parallelogram has an area of  $48\text{cm}^2$ . If its base is... what is its height?

- a. 12cm      b. 4cm      c. 16cm

12. A parallelogram has an area of  $50\text{cm}^2$ . If its height is... what is its base?

- a. 25cm      b. 0.5cm      c. 2.5cm

13. Tayyab is calculating the area of the parallelogram. He says the area is  $9\text{cm}^2$ . Is Tayyab correct? Explain.



Challenge

14. The area of a parallelogram is  $40\text{cm}^2$ .

Draw three different parallelograms that would have this area. Label the measures of the perpendicular height and base.



You might want to talk to an adult



Spot the mistake

## Answers

Q no.	Question	Answer
1	$84,573 + 98,554$	183,127
2	$2,304 \times 73$	168,192
3	$\frac{4}{5} \times \frac{7}{8}$	$\frac{28}{40}$ or $\frac{7}{10}$
4	19% of 4,500	855
5	Write a formula to find the area of a parallelogram.	base x perpendicular height = area
6	Calculate the area of this parallelogram.	126cm <sup>2</sup>
7	Calculate the area of this parallelogram.	7cm <sup>2</sup>
8	Calculate the area of this parallelogram.	96cm <sup>2</sup>
9	Calculate the area of this parallelogram.	25cm <sup>2</sup>
10	Explain the link between the area of a parallelogram and a rectangle.	Pupils should notice that if they take the triangle created by finding the perpendicular height and add it to the other side, it creates a rectangle. A rectangle and parallelogram with the same base and height/ perpendicular height will have the same area.
11	A parallelogram has an area of 48cm <sup>2</sup> . If its base is... what is its height?	a) 4cm, b) 12cm, c) 3cm
12	A parallelogram has an area of 50cm <sup>2</sup> . If its height is... what is its base?	a) 2cm, b) 100cm, c) 20cm
13	Is Tayyab correct? Explain.	Tayyab is incorrect. He has not found the perpendicular height and has instead found the base twice. Note that the pupils have not been asked to find the correct answer, only explain why Tayyab is incorrect.
14	The area of a parallelogram is 40cm <sup>2</sup> . Draw three different parallelograms that would have this area. Label the measures of the perpendicular height and base.	Accept answers that are clearly labelled and would give an answer of 40cm <sup>2</sup> . Possible answers: perpendicular height - 4cm, base - 10cm perpendicular height - 1cm, base - 40cm perpendicular height - 5cm, base - 8cm

## Arithmetic

1.  $858,263 - 34,284$

2.  $3,976 \div 7$

3.  $\frac{3}{4} - \frac{1}{9}$

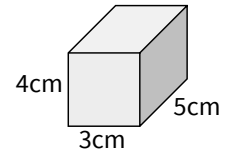
4. 6% of 610

## Practice: Volume and Volume of a Cube

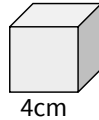
5. Recap: Write a formula for finding the volume of a cube or cuboid.



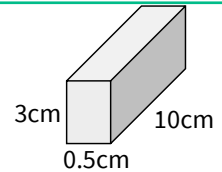
6. Calculate the volume of this cuboid.



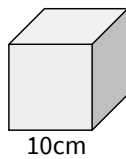
7. Calculate the volume of this cube.



8. Calculate the volume of this cuboid.



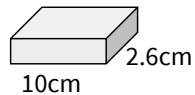
9. Calculate the volume of this cube.



10. Explain the link between area and volume.



11. This cuboid has a volume of  $52\text{cm}^3$ . What is its height?



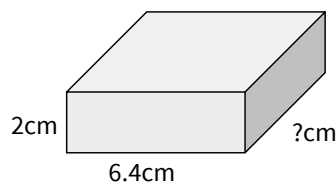
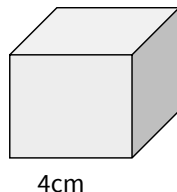
12. A cube has a volume of  $8\text{cm}^3$ . What does one side measure?

13. Laurel is calculating the volume of a cuboid measuring  $3\text{cm} \times 4\text{cm} \times 8\text{cm}$ . She says the volume is  $15\text{cm}^3$ . Is Laurel correct? Explain.



Challenge

14. The cube and the cuboid have the same volume.



What is the missing measure?

Show how you found your answer.



You might want to talk to an adult



Spot the mistake



## Answers

Q no.	Question	Answer
1	$858,263 - 34,284$	823,979
2	$3,976 \div 7$	568
3	$\frac{3}{4} - \frac{1}{9}$	$\frac{23}{36}$
4	6% of 610	36.6
5	Write a formula for finding the volume of a cube or cuboid.	length x width x height
6	Calculate the volume of this cuboid.	$60\text{cm}^3$
7	Calculate the volume of this cube.	$64\text{cm}^3$
8	Calculate the volume of this cuboid.	$15\text{cm}^3$
9	Calculate the volume of this cube.	$1,000\text{cm}^3$
10	Explain the link between area and volume.	Area is the amount of space occupied by a 2D shape. Volume is the amount of space within a 3D shape. Area is measured in units squared and volume is measured in units cubed.
11	This cuboid has a volume of $52\text{cm}^3$ . What is its height?	2cm
12	A cube has a volume of $8\text{cm}^3$ . What does one side measure?	2cm
13	Is Laurel correct? Explain.	Laurel is incorrect. She has added the three measures instead of multiplying them. The correct answer is $96\text{cm}^3$ .
14	The cube and the cuboid have the same volume.  What is the missing measure?  Show how you found your answer.	Missing measure = 5cm