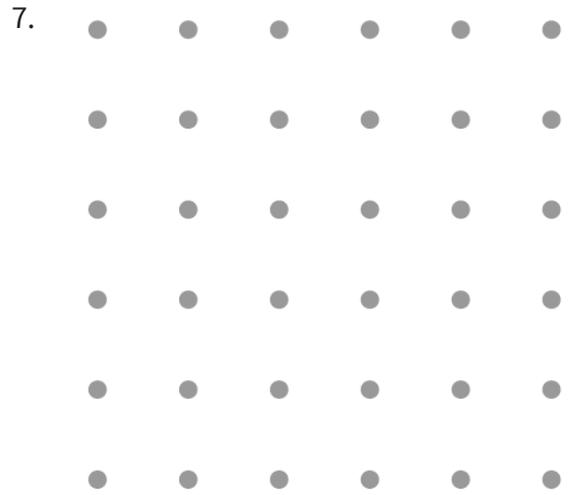
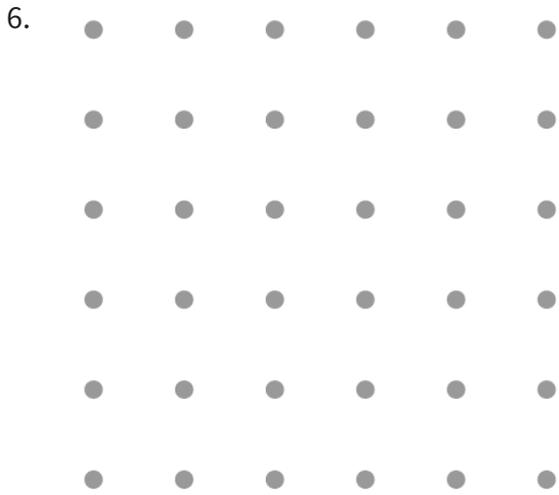


# Independent Recap

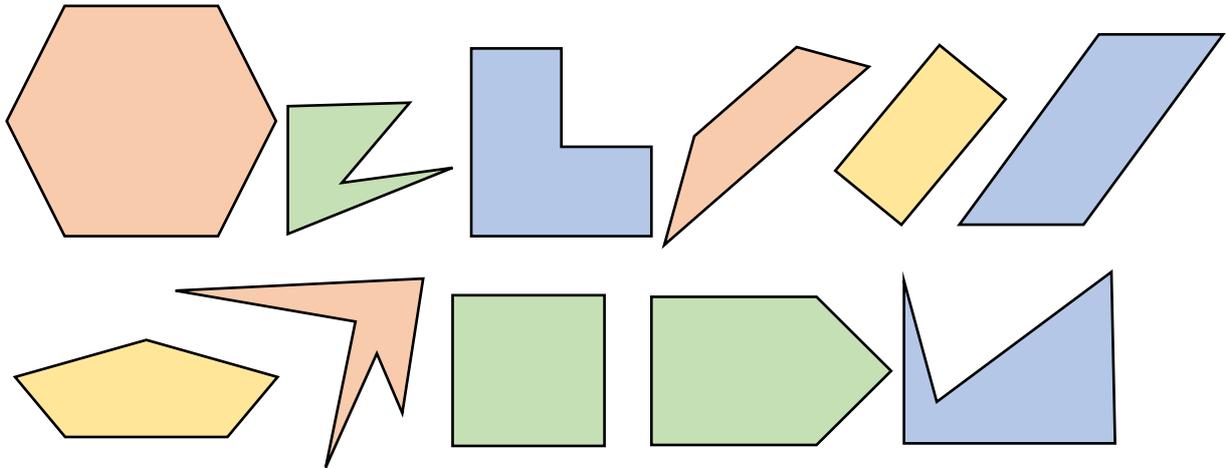
Geometry  
Week 11

Year 5

# Resources



Larger images for questions 8 and 9.



## Arithmetic

1.  $630 \div 9$

2.  $50 \times 90$

3.  $400 \div 50$

4.  $121 \times 6$

## Practice: Regular and Irregular Polygons

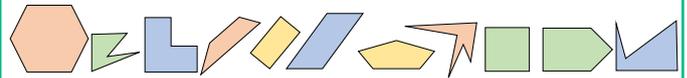
5. Recap: Define 'regular polygon' and 'irregular polygon'.



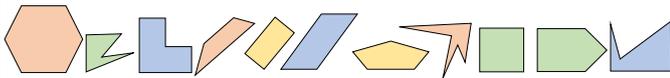
6. Draw a regular polygon on the dotted grid.

7. Draw an irregular polygon on the dotted grid.

8. How many irregular shapes are there?



9. Name the regular shapes shown.



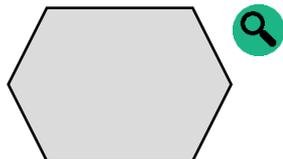
10. Think about the definition of a regular 2D shape. Is a rectangle an example of a regular quadrilateral?



11. Using a ruler, draw an irregular pentagon.

12. Using a ruler, draw an irregular octagon.

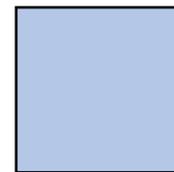
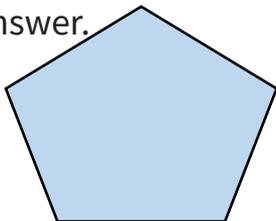
13. This shape is regular.  
Is this correct? Explain.



Challenge

14. Which one is the odd one out?

Explain your answer.



You might want to talk to an adult



Spot the mistake

## Answers

Q no.	Question	Answer
1	$630 \div 9$	70
2	$50 \times 90$	4,500
3	$400 \div 50$	8
4	$121 \times 6$	726
5	Define 'regular polygon' and 'irregular polygon'	A regular polygon has sides that are all equal and angles that are all equal. Irregular polygons do not have equal sides and equal angles.
6	Draw a regular polygon on the dotted grid.	Correctly drawn regular polygon.
7	Draw an irregular polygon on the dotted grid.	Correctly drawn irregular polygon.
8	How many irregular shapes are there?	9
9	Name the regular shapes shown.	Hexagon, square
10	Is a rectangle an example of a regular quadrilateral?	A rectangle is an irregular shape as it has unequal sides.
11	Using a ruler, draw an irregular pentagon.	Correctly drawn – 5 sides, all different.
12	Using a ruler, draw an irregular octagon.	Correctly drawn – 8 sides, all different.
13	This shape is regular. Is this correct? Explain.	The shape looks similar to a regular shape, however, when measured all the sides are not equal.
14	Which one is the odd one out? Explain your answer.	Answers will vary depending on the shape the pupil has selected. Example answers: The square is the odd one out as it is the only regular shape. The rectangle is the odd one out as it is not blue. The pentagon is the odd one out as it is not a quadrilateral.

## Arithmetic

1.  $481 \div 100$

2.  $83 \times 3$

3.  $741,862 + 28,411$

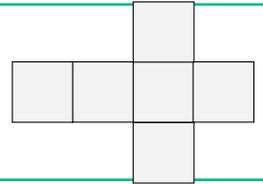
4.  $\frac{9}{10}$  of 110

## Practice: Identify 3D Shapes from 2D Shapes

5. Recap: What is a 3D shape net?

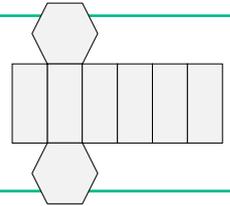


6. Which 3D shape does this net make?



7. Complete the sentences about the net in question 6.  
This net has ? faces. They are all ?.

8. Which 3D shape does this net make?



9. Complete the sentences about the net in question 8.  
This net has ? faces. Two are ? and ? are rectangles.

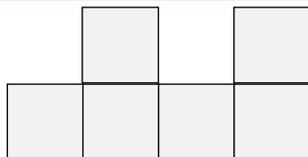
10. True or false. Nets can help you to identify and count the faces on a 3D shape. Explain.



11. Name two 3D shapes with curved surfaces.

12. Name a 3D shape with the same number of vertices as faces.

13. This net makes a cube? Do you agree? Explain.



Challenge

14. Create at least 5 different nets for a cube.



You might want to talk to an adult

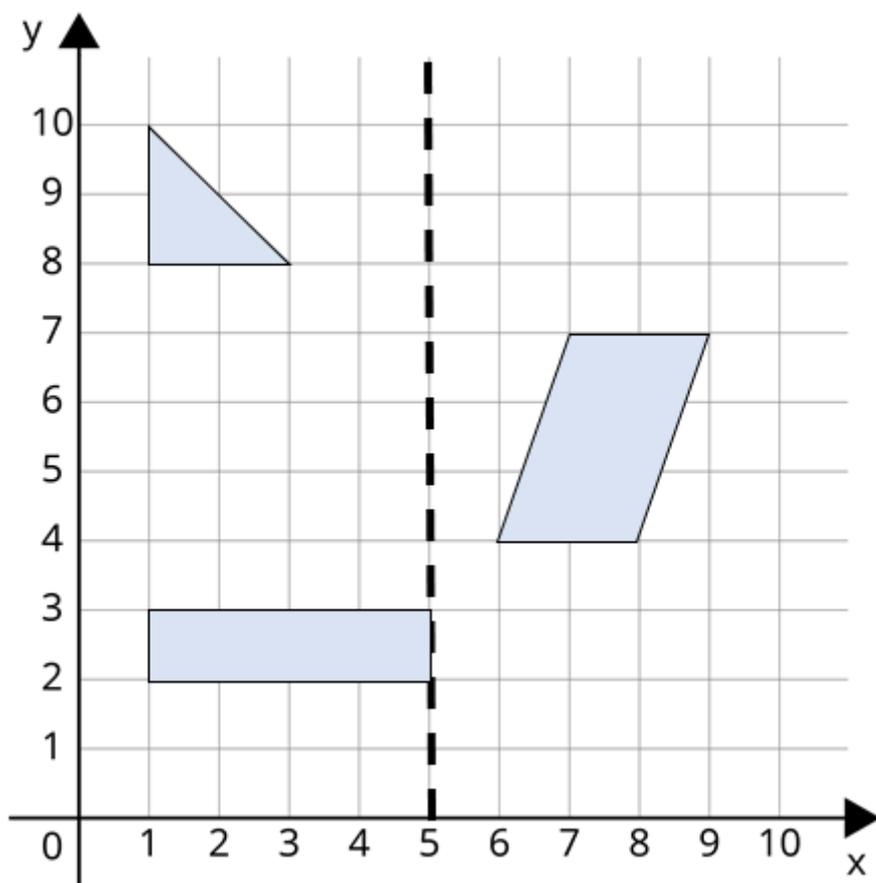


Spot the mistake

## Answers

Q no.	Question	Answer
1	$481 \div 100$	4.81
2	$83 \times 3$	249
3	$741,862 + 28,411$	770,273
4	$\frac{9}{10}$ of 110	99
5	What is a 3D shape net?	A net of a 3D shape is what a 3D shape would look like if it was opened out and placed flat. A net can be folded to create a 3D shape.
6	Which 3D shape does this net make?	Cube
7	Complete the sentences about the net in question 6.	6, square
8	Which 3D shape does this net make?	Hexagonal prism
9	Complete the sentences about the net in question 8.	8, hexagons, 6
10	True or false. Nets can help you to identify and count the faces on a 3D shape. Explain.	True. With 3D shapes (both physical shapes and images) it can be difficult to count the faces, especially if the image of the 3D shape is solid (it can be hard for pupils to visualise the shape). By having the net of a shape, it's easier to count the faces and see their shape without recounting them or misidentifying them.
11	Name two 3D shapes with curved surfaces.	Sphere, hemisphere, cylinder, cone
12	Name a 3D shape with the same number of vertices as faces.	Square-based pyramid
13	This net makes a cube? Do you agree? Explain.	This net would not make a cube. It has the correct number of faces and they are all squares but if this was attempted to be made into a cube, it would not meet up without overlapping faces.
14	Create at least 5 different nets for a cube.	Answers will vary. Accept answers that are accurate cube nets.

# Grid



## Arithmetic

1.  $\frac{5}{8} + \frac{2}{8}$

2.  $\frac{3}{5}$  of 35

3.  $154 + 60$

4.  $\frac{1}{5} + \frac{11}{10}$

## Practice: Reflection

5. Recap: Explain how to read the coordinates on a grid.



6. Reflect the triangle in the mirror line and draw its new position.

7. What are the new coordinates of the reflected triangle?

8. Reflect the parallelogram in the mirror line. What are its new coordinates?

9. Reflect the rectangle in the mirror line. What are its new coordinates?

10. If a shape is reflected, do its dimensions change?



11. The mirror line is moved one square to the left. What would the triangle's new coordinates be if it were reflected now?

12. The mirror line is moved. The parallelogram is reflected and its new coordinates are (6,4) (4,4) (5,7) (3,7). How was the mirror line moved?

13. Demi says the answer to question 12 is one square to the left. Is this correct? Explain.



Challenge

14. A square is drawn on the grid. It is reflected in the mirror line. Three of its new coordinates are (2,1) (2,2) (3,2).

What were the original coordinates of the square?



You might want to talk to an adult

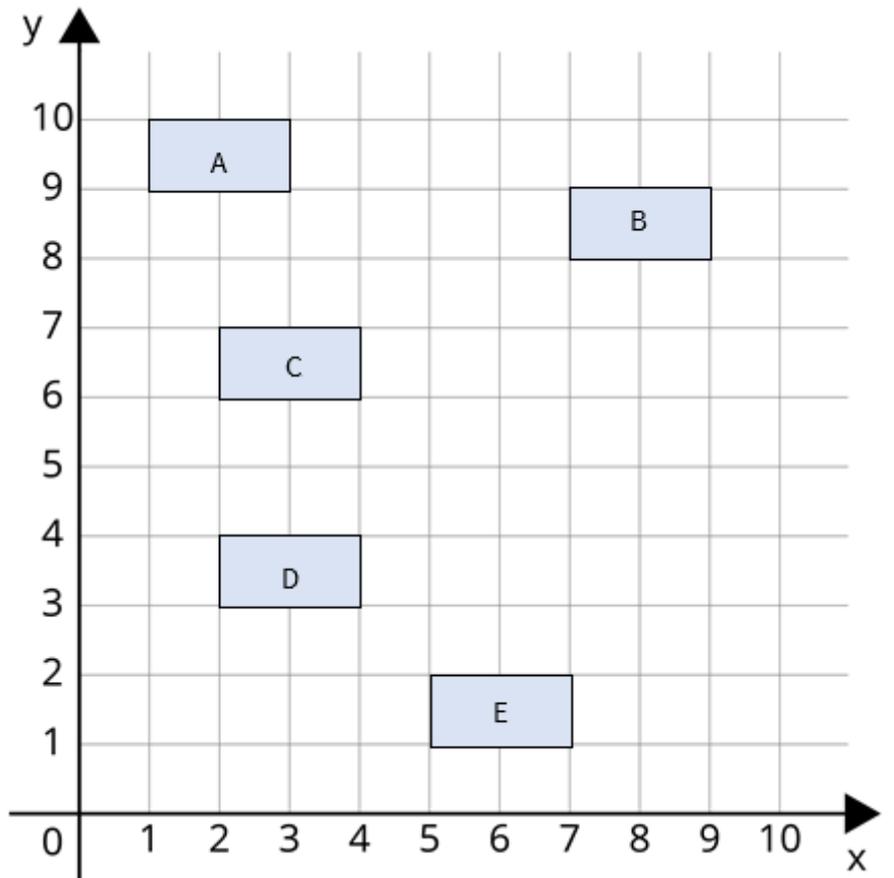
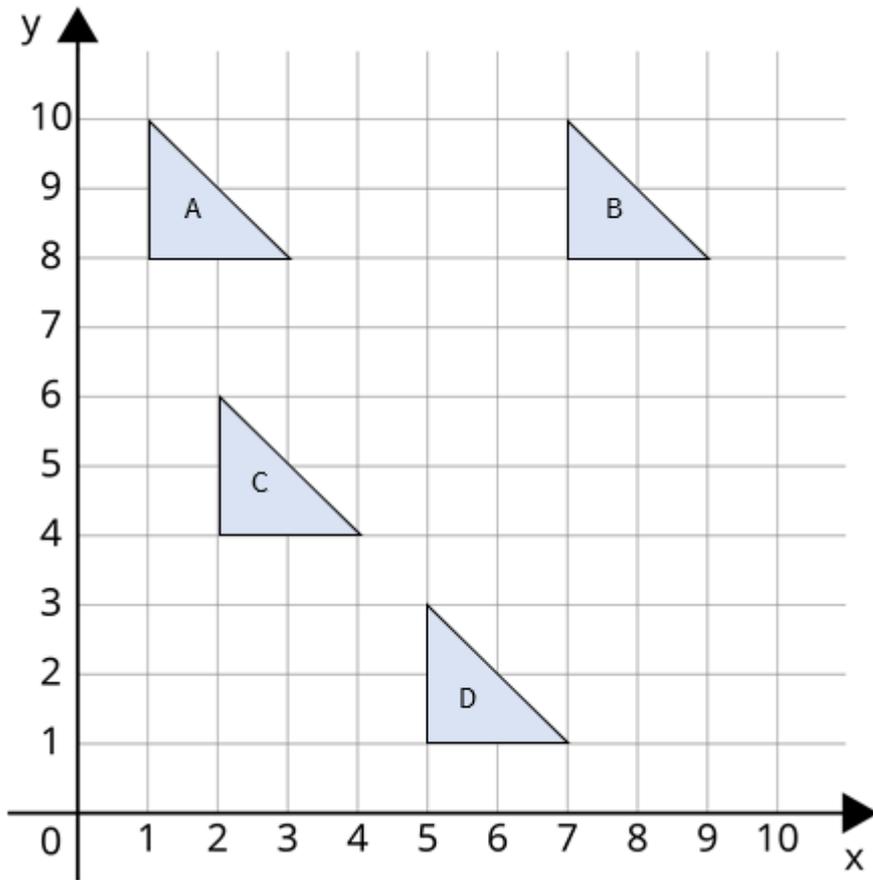


Spot the mistake

# Answers

Q no.	Question	Answer
1	$\frac{5}{8} + \frac{2}{8}$	$\frac{7}{8}$
2	$\frac{3}{5}$ of 35	21
3	$154 + 60$	214
4	$\frac{1}{5} + \frac{11}{10}$	$\frac{13}{10}$ or 1 and $\frac{3}{10}$
5	Explain how to read the coordinates on a grid.	Pupils should be able to identify the x-axis and the y-axis. They should know that to read coordinates they start with reading the coordinates on the x-axis then go up (or down if there is more than one quadrant) to find the y-axis coordinate.
6	Reflect the triangle in the mirror line and draw its new position.	Correctly reflected.
7	What are the new coordinates of the reflected triangle?	(7,8) (9,8) (9,10)
8	Reflect the parallelogram in the mirror line.	(2,4) (4,4) (1,7) (3,7)
9	Reflect the rectangle in the mirror line.	(5,2) (5,3) (9,2) (9,3)
10	If a shape is reflected, do its dimensions change?	The dimensions do not change when a shape is reflected.
11	What would the triangle's new coordinates be if it were reflected now?	(5,8) (7,8) (7,10)
12	How was the mirror line moved?	One square to the right
13	Demi says the answer to question 12 is one square to the left. Is this correct? Explain.	This is incorrect. Demi has confused left and right. This is a common error that pupils can struggle with in the topic of position and direction.
14	A square is drawn on the grid. It is reflected in the mirror line. Three of its new coordinates are (2,1) (2,2) (3,2). What were the original coordinates of the square?	This question involves the pupil working back from the information given. They have been given three coordinates so can work out the fourth. From these coordinates, they can identify how far from the mirror line the square is and find its original coordinates. The original coordinates were (7,1) (7, 2) (8,2) (8,1)

# Grids



## Arithmetic

1.  $5.04 + 0.06$

2.  $40 \times 90$

3.  $48 \times 4$

4.  $7.4 - 1.23$

## Practice: Translation

5. Recap: Define translation.



6. Triangle B is translated one square down and one left. Draw its new position.

7. Describe the translation from triangle A to C.

8. Triangle 1 is translated 3 squares to the left and 3 up to become triangle 2. Which two triangles are they?

9. Translate rectangle C 2 squares to the right and 4 down.

What are its new coordinates?

10. Explain how you translate a shape.



11. Rectangle B has been translated so its new coordinates are (6,5) (8,5) (8,6) (6,6).

Describe its translation.

12. Translate these coordinates up 3 squares and left 2 and write the new coordinates.

(2,4) (7,3) (4,0)

13. Matilda says triangle A has been translated 6 down and 1 right to become triangle C. Is she correct? Explain.



Challenge

14. The answer is (2, 4).

Write at least 4 translation questions for the triangle or rectangle grid that would give this answer.



You might want to talk to an adult



Spot the mistake

## Answers

Q no.	Question	Answer
1	$5.04 + 0.06$	5.1
2	$40 \times 90$	3,600
3	$48 \times 4$	192
4	$7.4 - 1.23$	6.17
5	Define translation.	Translation means movement. When a shape has been translated, it has been moved up/ down and/ or left/ right to a new location.
6	Triangle B is translated one square down and one left. Draw its new position.	Correctly drawn triangle.
7	Describe the translation from triangle A to C.	4 squares down, 1 right
8	Triangle 1 is translated 3 squares to the left and 3 up to become triangle 2.	D and C
9	Translate rectangle C 2 squares to the right and 4 down.	(6,2) (4,2) (4,3) (6,3)
10	Explain how you translate a shape.	Pupils should describe their method from translating shapes. When translating shapes, it is easiest to translate one vertex at a time.
11	Describe its translation.	Down 3 squares, left 1
12	Translate these coordinates up 3 squares and left 2 and write the new coordinates.	(0,7) (5,6) (2,3)
13	Matilda says triangle A has been translated 6 down and 1 right to become triangle C. Is she correct? Explain.	Matilda is incorrect. She has taken the top vertex of triangle A and has translated it to the right-angle triangle vertex of triangle C. As pupils are required to remember the vertex they are translating and count the movement, some pupils can become confused.
14	The answer is (2, 4). Write at least 4 translation questions for the triangle or rectangle grid that would give this answer.	Answers will vary. Example answers: Rectangle C is translated 3 down, write one of the new coordinates. Rectangle B is translated 5 left and 6 down, write one of the new coordinates. Triangle A is translated 4 down and 1 right, write one of the new coordinates.