

YEAR 2

MATHS

# Home Learning Pack

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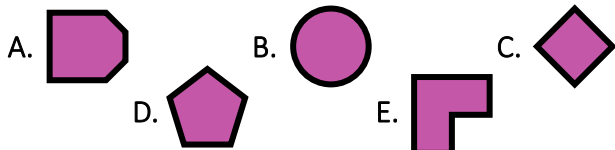
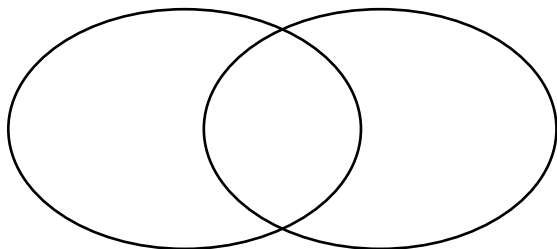


# Sort 2D Shapes

1. Write the letters of each shape in the correct section of the Venn diagram.

Vertical line of symmetry

5 vertices or more

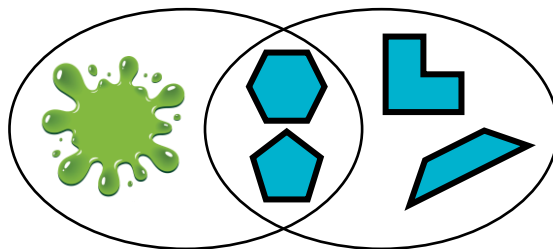


VF

4. Marie has sorted some shapes. One shape is hidden by a splat.

Vertical line of symmetry

4 sides or more



Draw 2 possible shapes that could be hidden.

PS

2. Write the letters of the shapes in the correct section of the table.

More than 4 sides	3 vertices or fewer



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5. Is Jack correct? Explain your answer.



I can draw a pentagon and a triangle in the empty section.

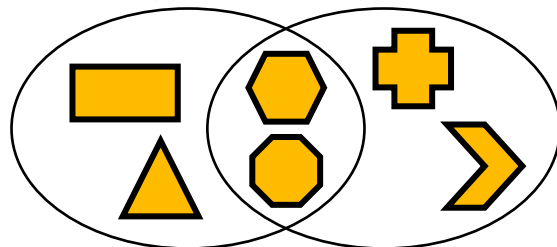
More than 5 sides	4 vertices or fewer

R

3. Tick the correct statements.

Set A

Set B



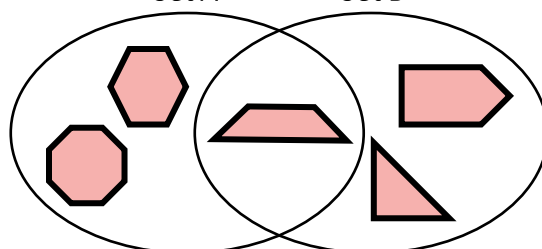
- A. Set A have vertical lines of symmetry.
- B. Set B have 5 or more vertices.
- C. A square can be added to set B.

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6. What could the missing labels on the Venn diagram be?

Set A

Set B

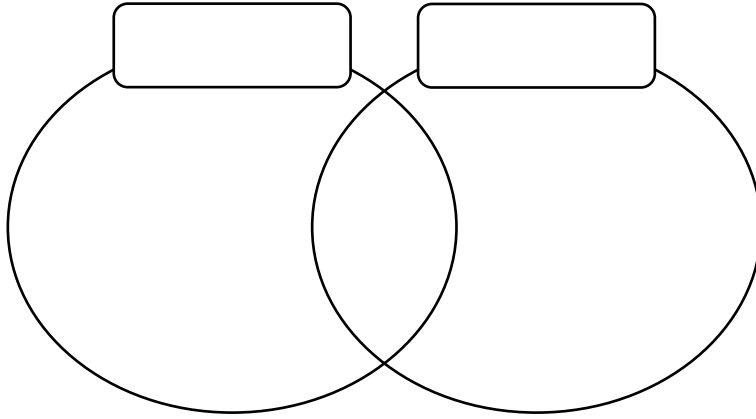
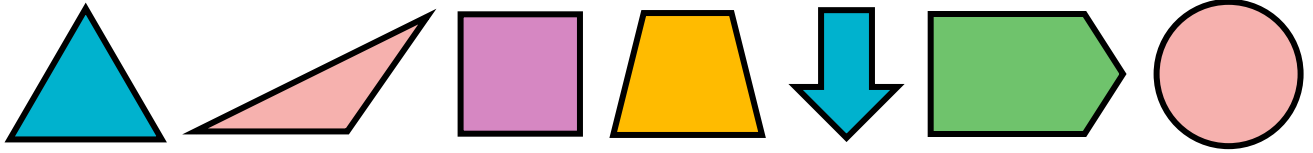


Explain your answer.

R

# Sort 2D Shapes

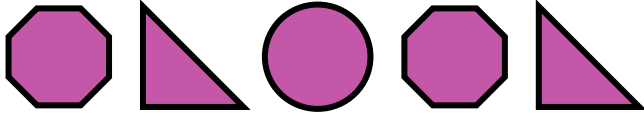
Sort the 2D shapes using the Venn diagram below.



Investigate how many different ways the shapes can be sorted.

# Make Patterns with 2D Shapes

1. Which shape will come next in the pattern?



- A. B. C.

VF

4. Lucas is making a pattern with 2D shapes



He says,

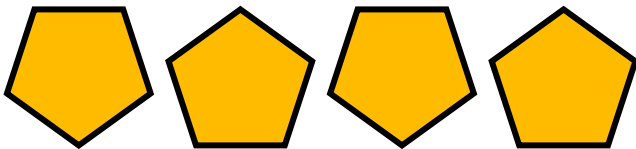


My pattern is made with hexagons.

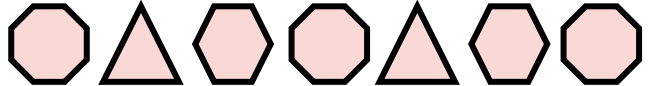
Is he correct? Convince me.

R

2. Draw the shape that will come next.



5. Millie and Hayden are talking about the pattern below.



I think the 11<sup>th</sup> shape will be a triangle.

Millie

I think the 11<sup>th</sup> shape will be an octagon.



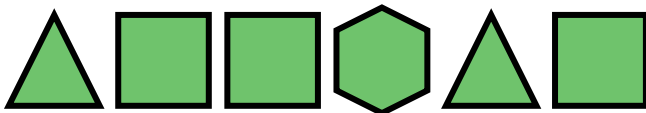
Hayden

Who is correct? Prove it.

VF

PS

3. Draw the shape that will be the twelfth in the pattern.



6. Lucy and Thomas use the clues below to draw a pattern made up of 9 shapes.

The third shape is a purple rectangle.

The first shape is a blue triangle.

The second shape is a green square.

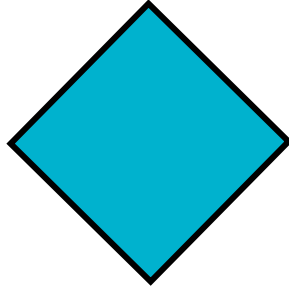
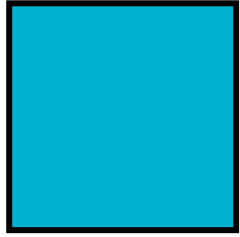
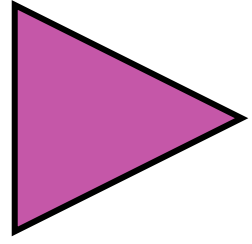
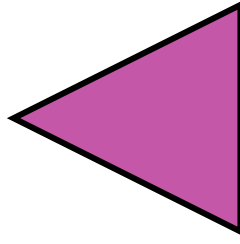
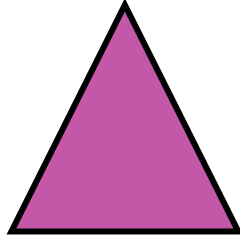
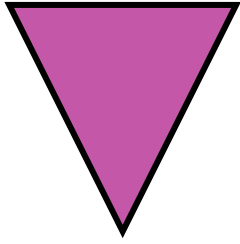
How could their patterns look different?

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PS

# Make Patterns with 2D Shapes

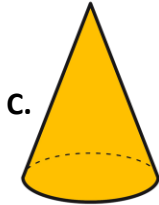
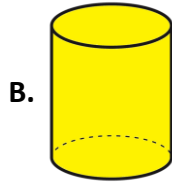
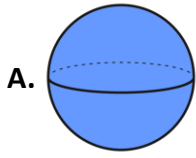
Use the shapes below to create a pattern.



Explore how many different patterns you can create.

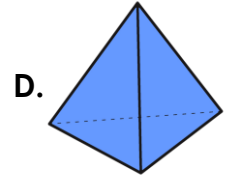
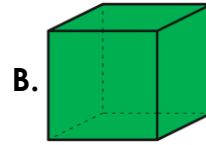
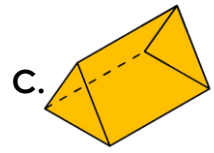
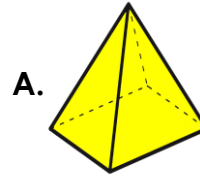
# Count Faces on 3D Shapes

1. Which of the shapes below has 1 flat face and 1 curved surface?



VF

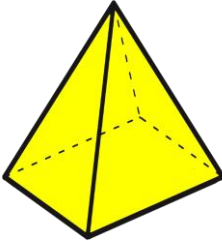
4. Which of the shapes below has the greatest number of faces?



Explain your answer.

R

2. Complete the sentences below.

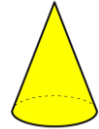
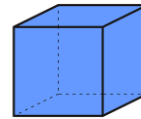


This shape is a .

It has  flat faces and  curved surfaces.

VF

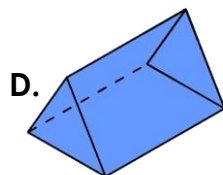
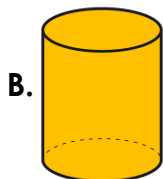
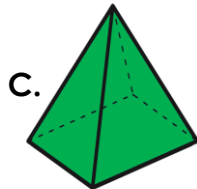
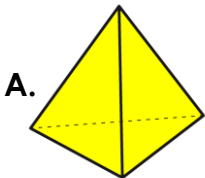
5. Fill in the table to match the shapes.



Name	Number of curved surfaces	Number of flat faces
	0	
		2

PS

3. Circle the shape with 4 faces.



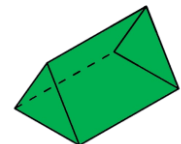
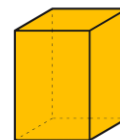
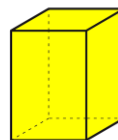
VF

6. Luna is counting faces on 3D shapes.

She says,



Two cuboids and a triangular prism have a total of 17 flat faces.



Can you find other combinations of 3D shapes with a total of 17 flat faces?

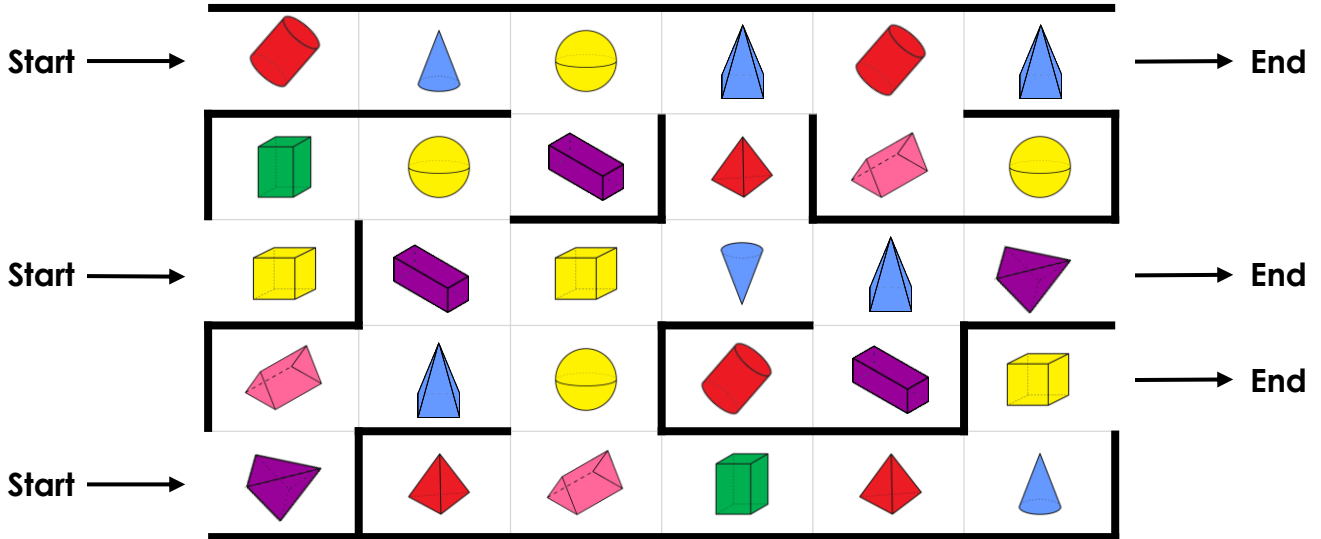
PS

# Count Faces on 3D Shapes

Matthew and Amelia are playing a game. They have to get across the shape maze.

### Rules

- 1 point for every flat face and 2 points for every curved surface.
- Add up the points you get for each shape.



Explore the different routes they could take and the points they could score. Which route would give the highest possible score?