



























Properties of Shape: Sort 2D Shapes

<p>Aim: Recognise and name common 2-D and 3-D shapes.</p> <p>DfE Ready-to-Progress Criteria: Recognise common 2D and 3D shapes presented in different orientations, and know that rectangles, triangles, cuboids and pyramids are not always similar to one another. (1G-1)</p> <p>To sort common 2D shapes.</p>	<p>Success Criteria:</p> <p>I can identify a shape that doesn't belong in a set.</p> <p>I can label groups of 2D shapes.</p> <p>I can sort 2D shapes into groups.</p> <p>I can add a shape to a set.</p>	<p>Resources:</p> <p>Lesson Pack</p> <p>2D shapes</p>
	<p>Key/New Words:</p> <p>Sort, group, set, 2D shape, square, rectangle, triangle, circle, side, corner, curved, straight, long, short.</p>	<p>Preparation:</p> <p>Differentiated Sort 2D Shapes Activity Sheets - one per child</p> <p>Diving into Mastery Activity Cards - as required</p>

Prior Learning: It will be helpful if children have experience recognising 2D shapes. The lesson [Recognise 2D Shapes](#) has been prepared to support this learning.

Learning Sequence

	<p>Remember It: The Lesson Presentation revisits previous learning by inviting the children to draw two different representations of common 2D shapes on their whiteboards. Ask the children what properties need to be included with each shape. Use the children's work to demonstrate how the same shapes can be shown in different sizes and orientations.</p>	
	<p>Odd One Out: The Lesson Presentation shows a group of 2D shapes. Ask the children to identify the odd one out and to explain why. The next slide also invites the children to describe what is the same about the odd shape and what is different. Can the children identify a 2D shape that doesn't belong to a set?</p>	
	<p>Label Groups: The Lesson Presentation shows two groups of shapes. Ask the children how these groups could be labelled. Invite them to suggest more ideas for labels. Can the children label groups of shapes?</p>	
	<p>Sort 2D Shapes: The Lesson Presentation invites children to sort 2D shapes into a group of triangles and a group of squares. They identify the shape that didn't belong in either set and explain why. The children then find a way to sort shapes into two groups and explain their reasoning. Can the children sort 2D shapes into groups?</p>	
	<p>Check It: Children check to see if shapes have been sorted correctly and explain how to correct errors.</p>	
	<p>Add it: The Lesson Presentation shows 2D shapes sorted into two sets. Show the children more 2D shapes and ask what groups they could be sorted into. Can the children add 2D shapes to a set?</p>	
	<p>Draw It: The Lesson Presentation shows the children how to make two sections on a whiteboard with a line. They then decide how to sort the shapes shown on the slide into two groups, drawing them on their whiteboard. Invite the children to explain their reasoning.</p>	

	<p>Sort 2D Shapes: Children complete differentiated Sort 2D Shapes Activity Sheets. Children cut out 2D shapes and place them into groups (some children may benefit from having the 2D shapes pre-cut). They also label groups of shapes, add shapes to a group and spot the odd one out.</p> <div style="display: flex; justify-content: space-between;"> <div data-bbox="244 226 592 674">  <p>Children have two examples of each 2D shape to sort, shown in different orientations and sizes. Children tick the correct label to identify how the shapes have been sorted into sets. They then look at groups of 2D shapes and spot the odd ones out. Children draw additional shapes to add to the sets of 2D shapes.</p> </div> <div data-bbox="624 226 971 618">  <p>Children have three examples of each 2D shape to sort, shown in different orientations and sizes. Children write labels to identify how 2D shapes have been sorted into sets. They draw an additional 2D shape in each set. Children then look at groups of 2D shapes and spot the odd ones out.</p> </div> <div data-bbox="1003 226 1351 725">  <p>Children have two examples of each 2D shape to sort, shown in different orientations and sizes. Some shapes are similar to common 2D shapes but have different features. Children place these shapes away from the sets. Children write labels to identify how 2D shapes have been sorted into sets. They draw an additional 2D shape in each set and spot the odd ones out.</p> </div> </div>	
	<p>Diving into Mastery: Schools using a mastery approach may prefer to use the following as an alternative activity. These sheets might not necessarily be used in a linear way. Some children might begin at the 'Deeper' section and in fact, others may 'dive straight in' to the 'Deepest' section if they have already mastered the skill and are applying this to show their depth of understanding.</p> <div style="display: flex; flex-direction: column; gap: 10px;"> <div data-bbox="244 898 1337 981">  <p>Children draw lines around shapes to make groups. They then add shapes to sets and identify those that look similar but don't have the same properties as the 2D shape. Children will need 2D shapes to continue their investigations.</p> </div> <div data-bbox="244 1010 1337 1093">  <p>Children apply their reasoning skills to investigate how they could sort the shapes to make one or two groups. They then decide whether shapes have been grouped and labelled. Children will need 2D shapes to continue their investigations.</p> </div> <div data-bbox="244 1122 1337 1189">  <p>Children demonstrate their problem-solving skills by investigating how many different ways the shapes could be sorted into groups. Children will need 2D shapes to continue their investigations.</p> </div> </div>	
	<p>Spot It: The Lesson Presentation invites children to draw a set of triangles and a set of rectangles but ask them to include one error in each set. Children ask learning partners to spot the errors and to explain how they know. Can the children identify a 2D shape that doesn't belong to a group?</p>	

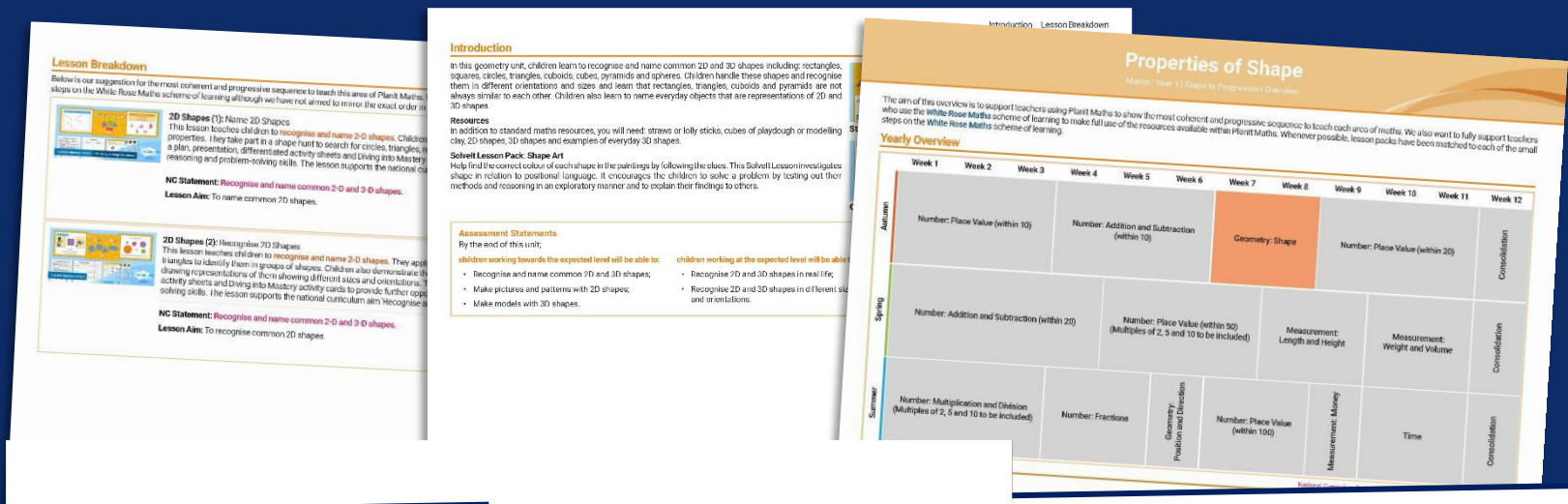
<p>Explore it</p> <p>Learnit: Children will find this visually exciting Knowledge Organiser a useful tool for learning shape 2D names and properties.</p> <p>Spotit: Children make groups of 2D shapes and include an odd one out. They then ask a friend to label the groups. Can they spot the odd one out?</p> <p>Sortit: Children make a collection of 2D shapes and investigate different ways to sort them. Working with a learning partner will help them to talk about ideas and explain your reasoning.</p>
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Maths

Properties of Shape

Need a coherently planned sequence of lessons to complement this resource?

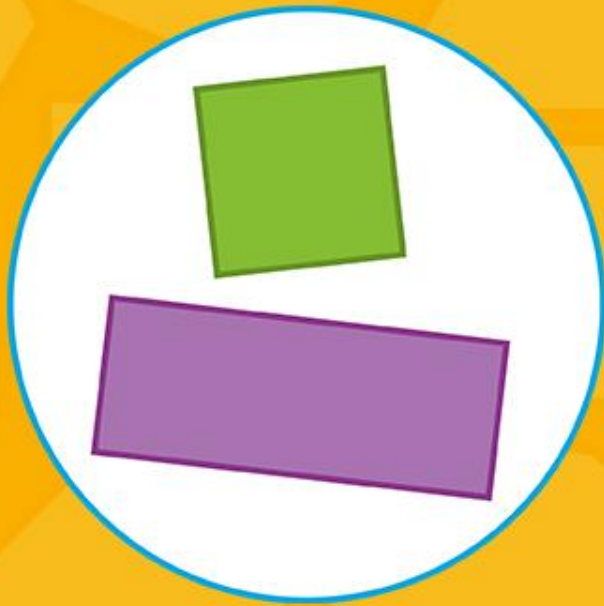


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document.

Twinkl PlanIt is our award-winning scheme of work with over 4000 resources.

Sort 2D Shapes



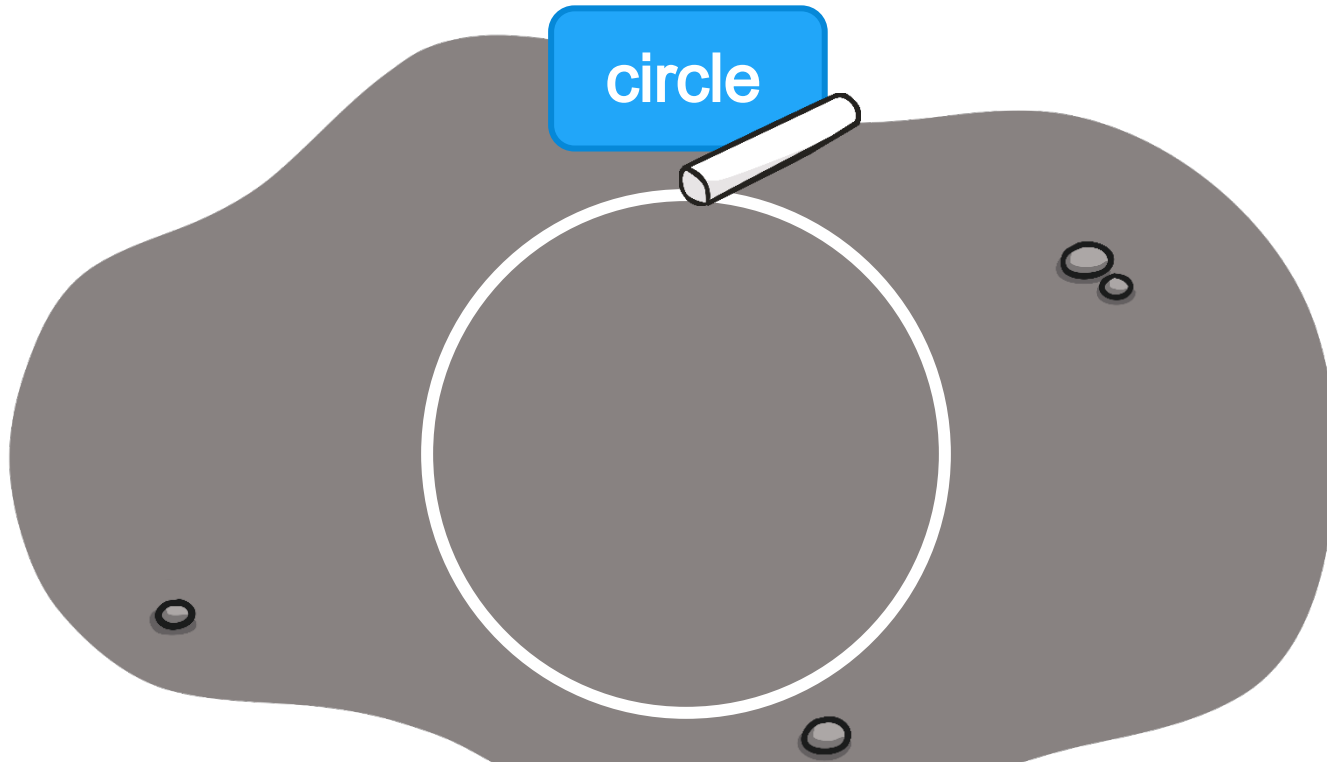
Aim

- To sort common 2D shapes.

SuccessCriteria

- I can identify a shape that doesn't belong in a set.
- I can label groups of 2D shapes.
- I can sort 2D shapes into groups.
- I can add a shape to a set.

Can you draw this shape?

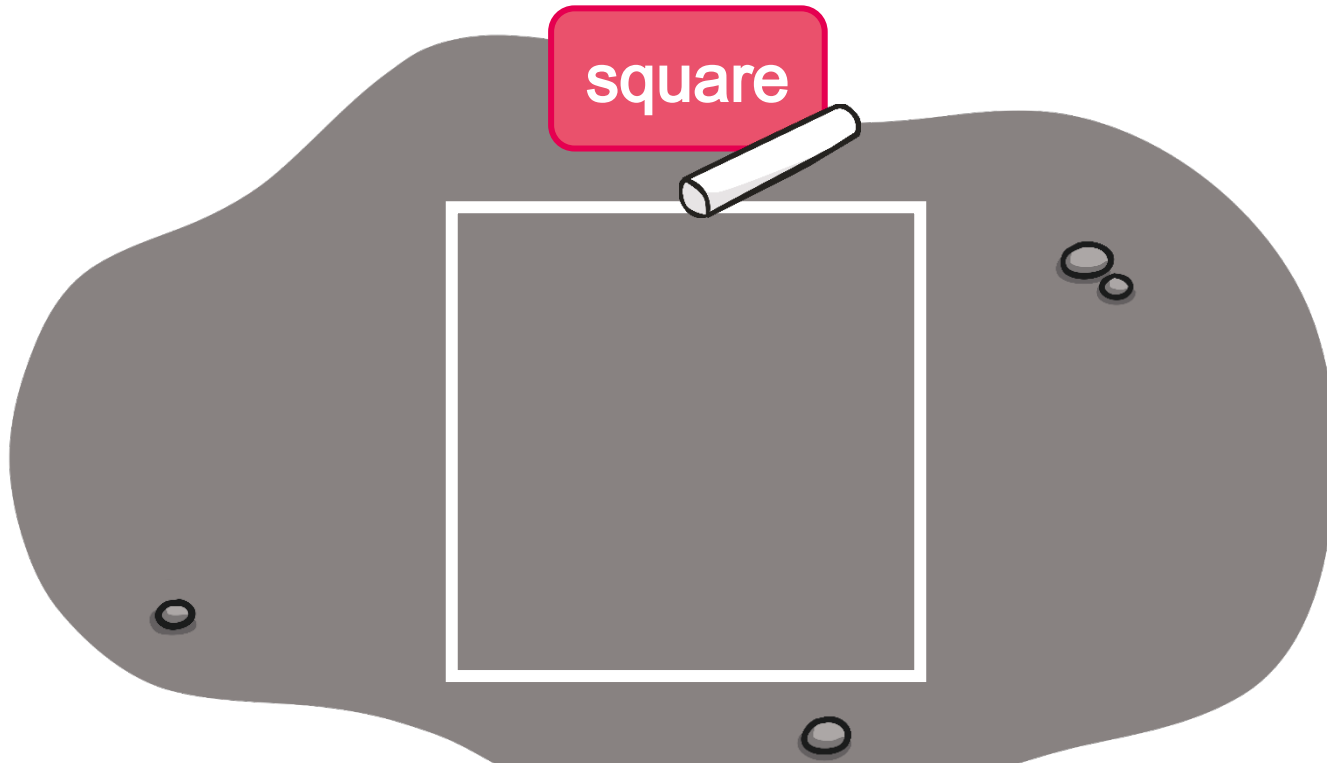


Compare your drawing with your classmates .

What's the same about them?

What's different?

Can you draw this shape?



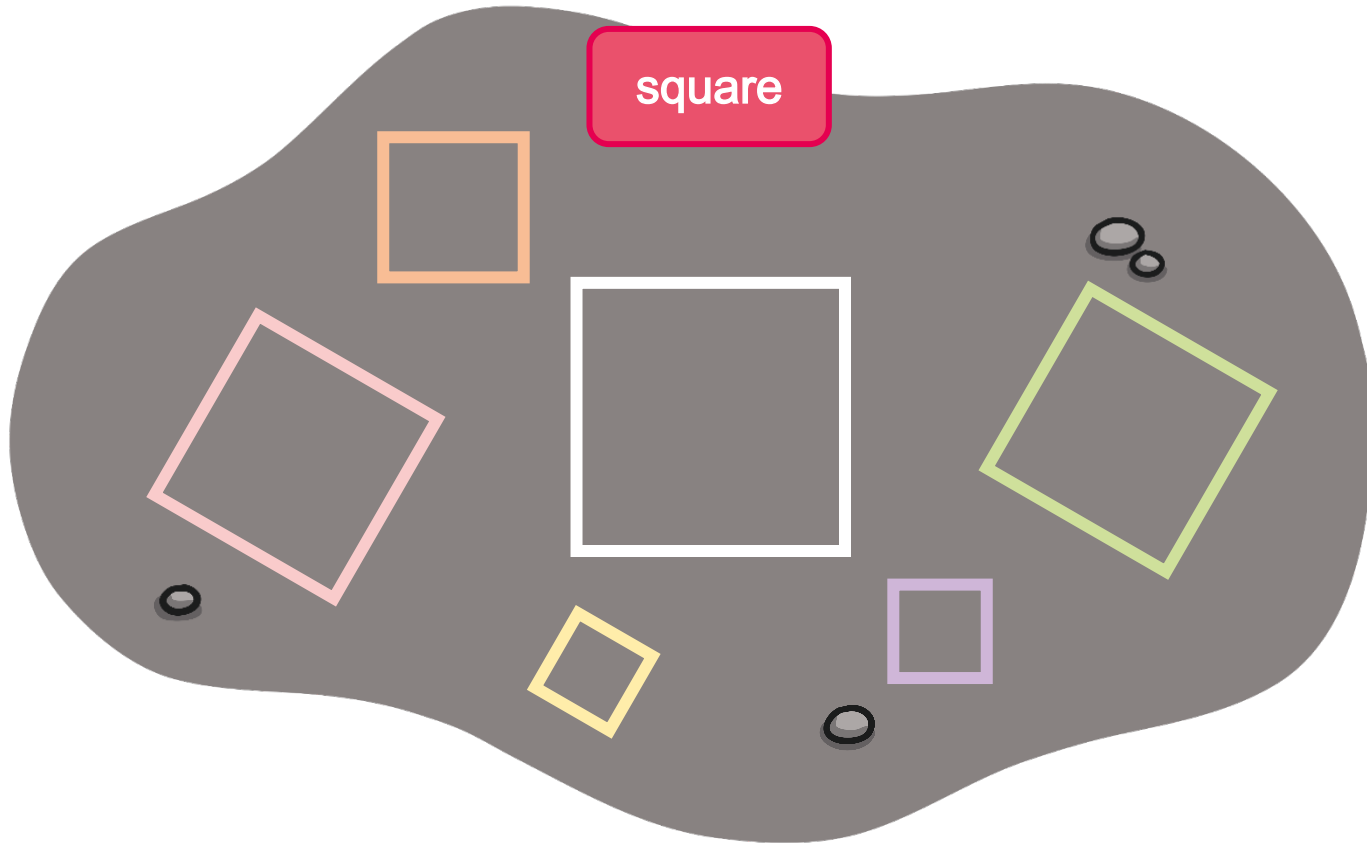
Compare your drawing with your classmates .

What's the same about them?

What's different?

Can you draw a different square?

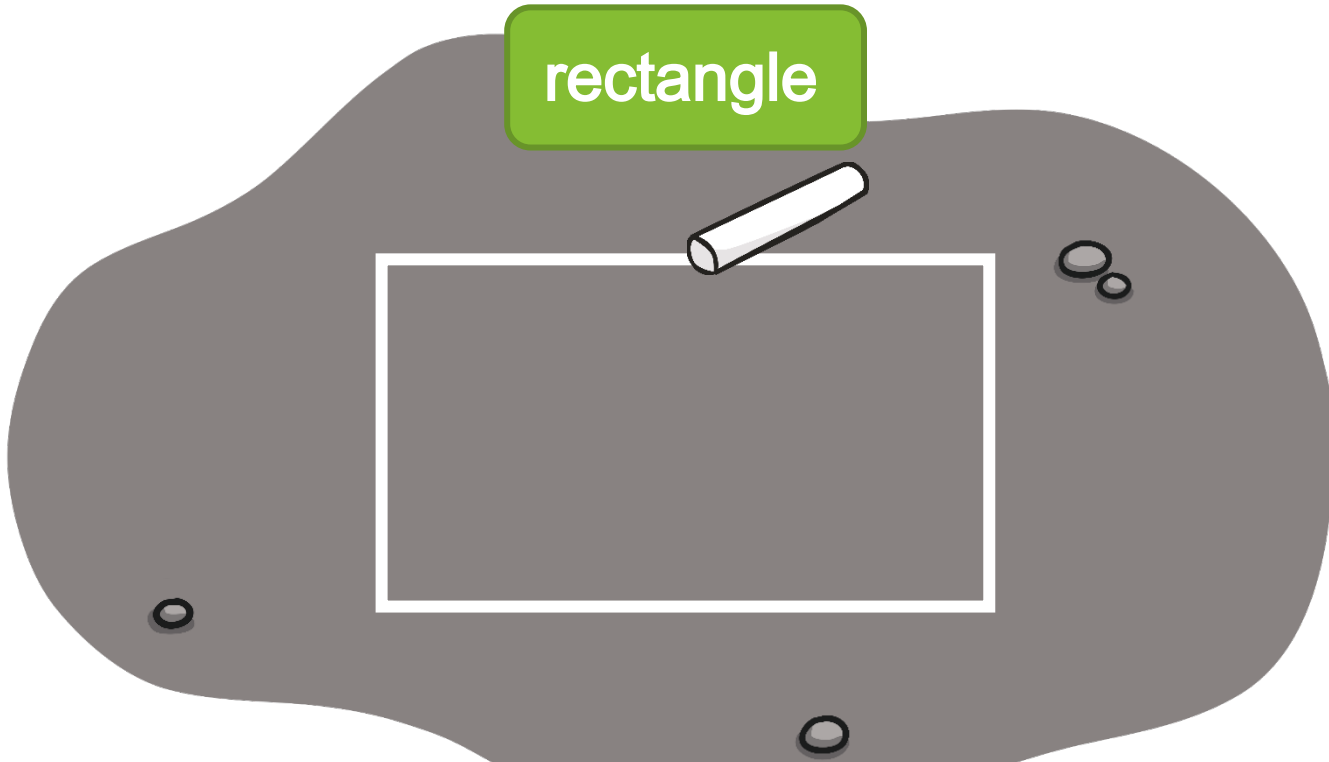
What do you need to remember?



Squares have 4 corners and 4 straight sides of the same length.

Can you draw this shape?

rectangle



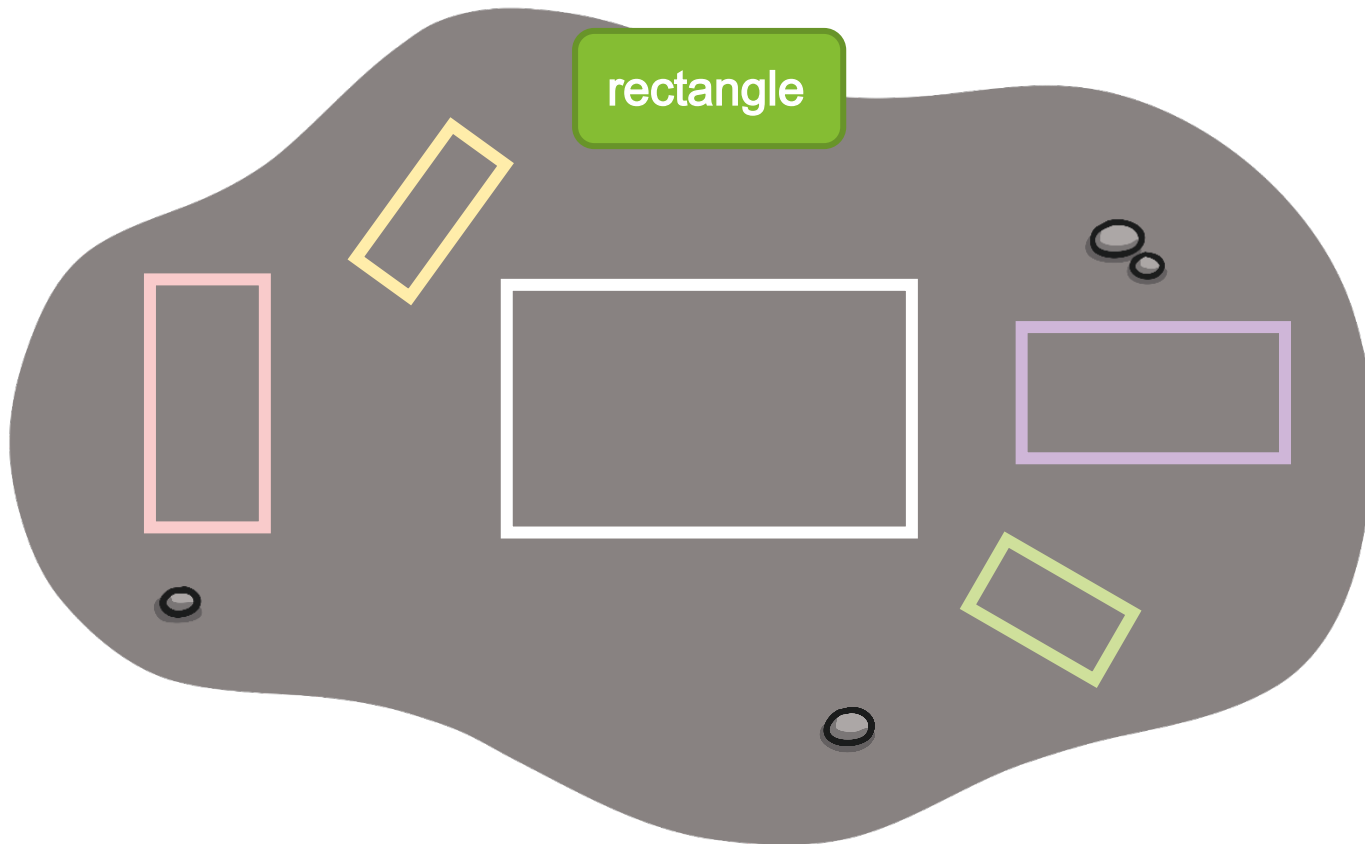
Compare your drawing with your classmates .

What's the same about them?

What's different?

Can you draw a different rectangle?

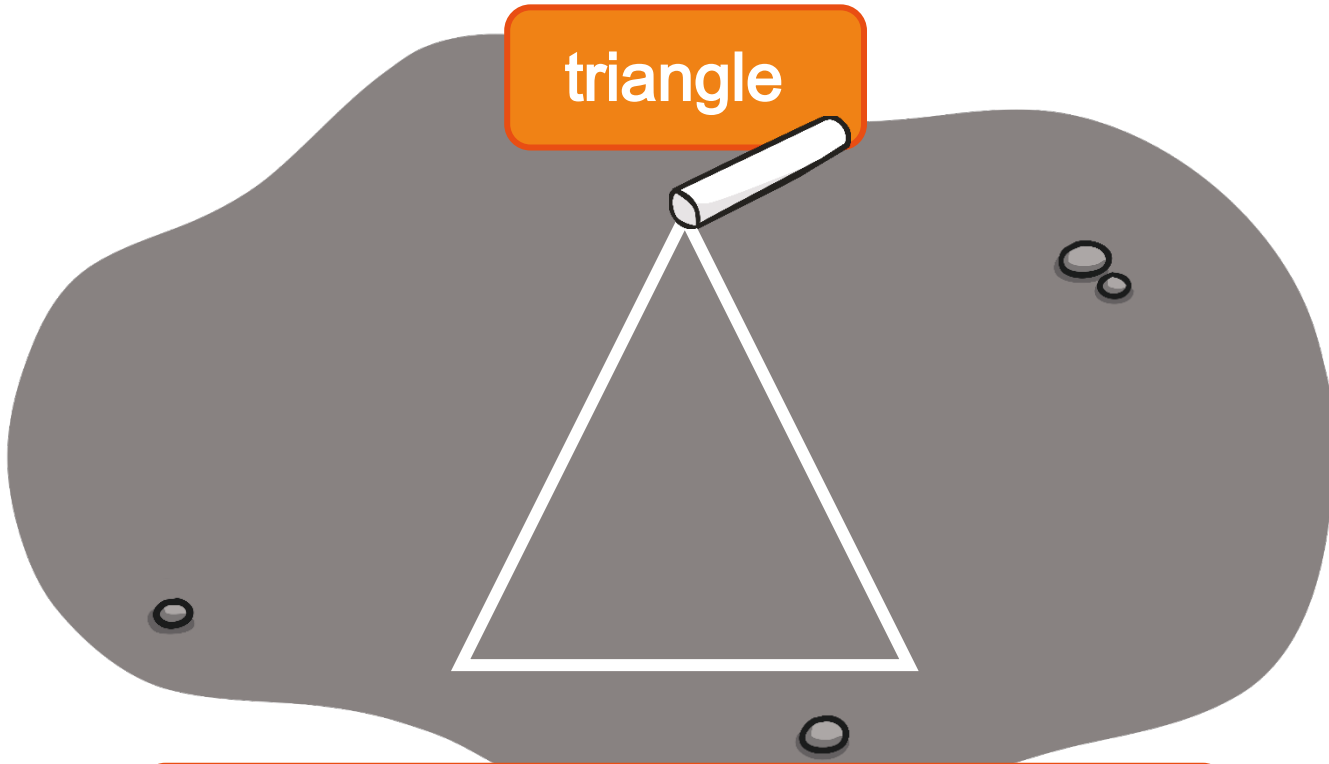
What do you need to remember?



Rectangles have 4 corners and 4 straight sides.

Can you draw this shape?

triangle



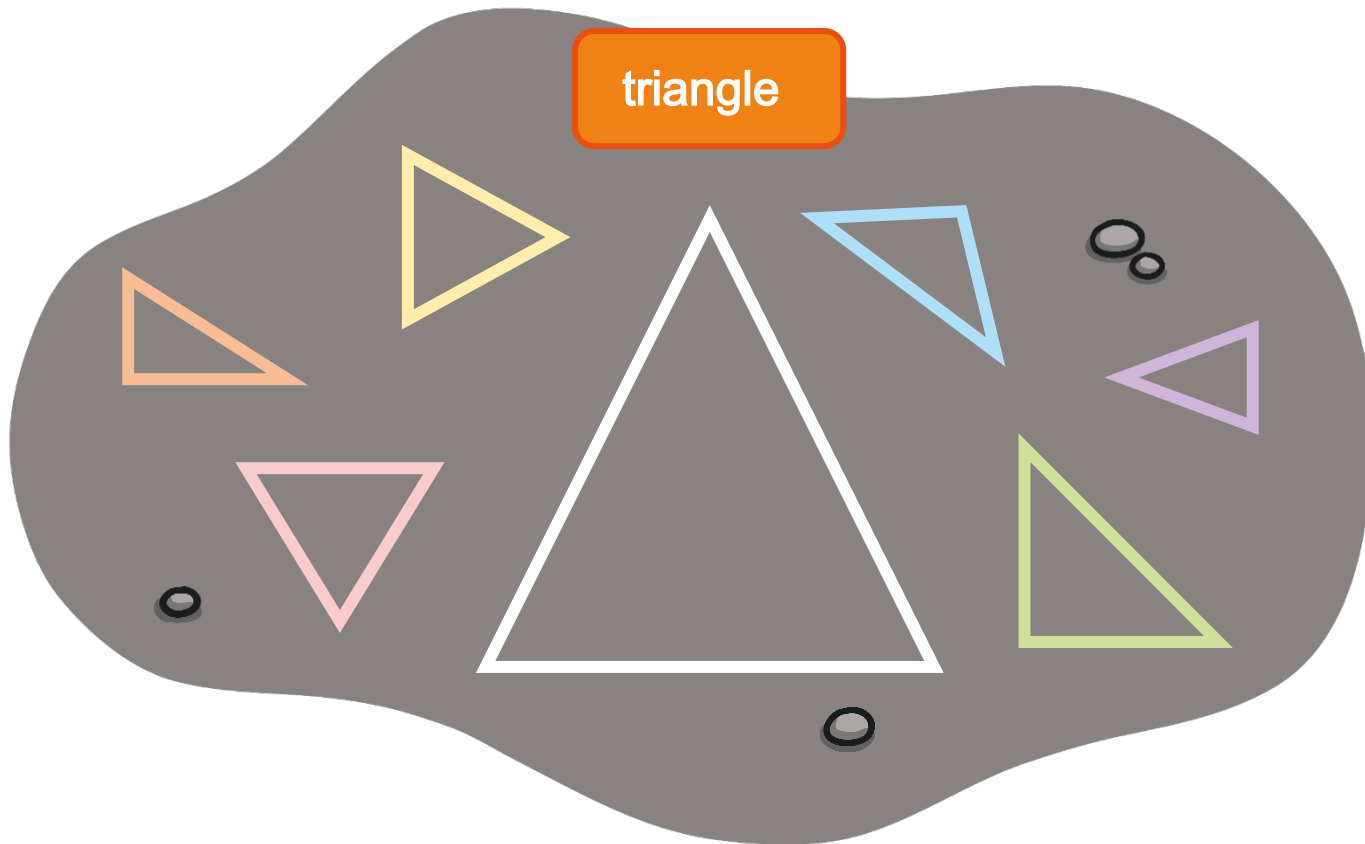
Compare your drawing with your classmates .

What's the same about them?

What's different?

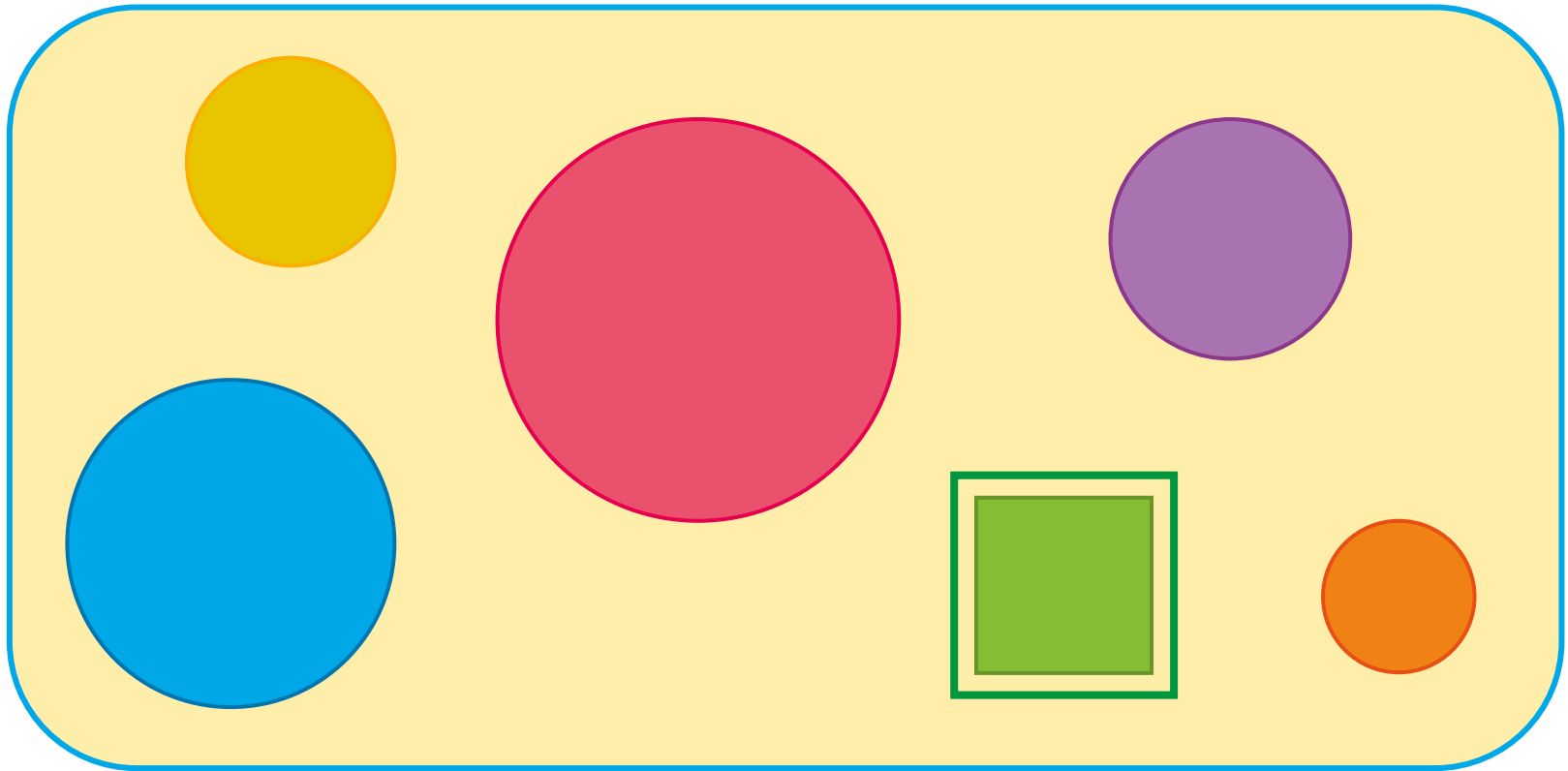
Can you draw a different triangle?

What do you need to remember?



Triangles have 3 corners and 3 straight sides.

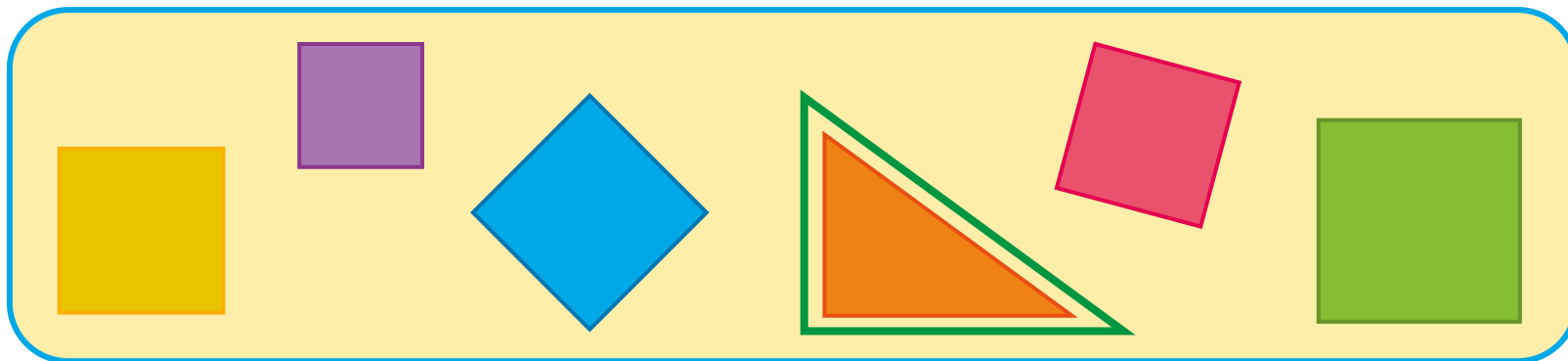
These shapes have been sorted into a group.
Can you spot the odd one out?



Can you explain why?

These shapes have been sorted into a group.

Can you spot the odd one out?



What is the same about the triangle and squares?

They have corners and straight sides.

What is different?

Triangles have 3 sides and 3 corners.
Squares have 4 sides and 4 corners.

These shapes are in 2 sorting rings.

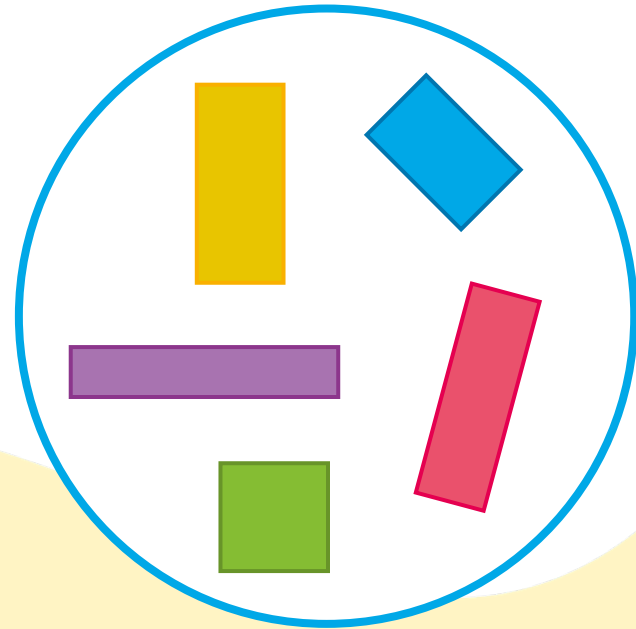
How would you label each group?



triangles

3 corners

3 straight sides

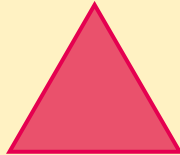


rectangles

4 corners

4 straight sides

Can you sort these shapes into the sets?



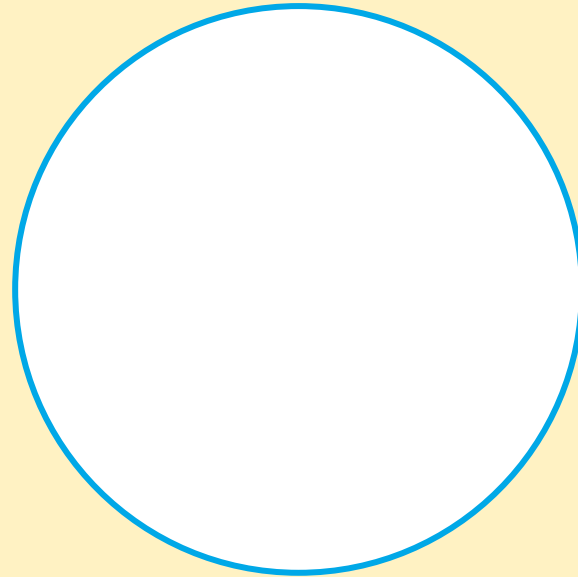
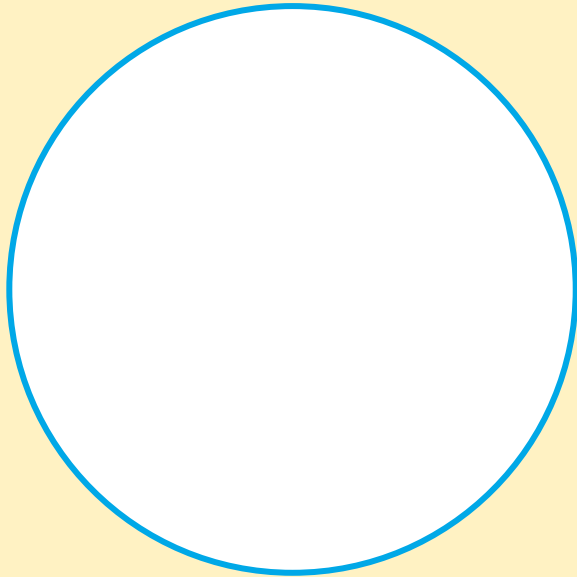
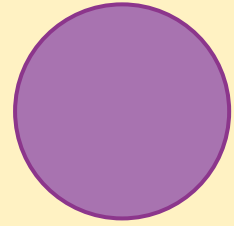
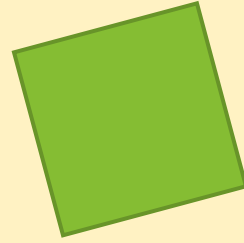
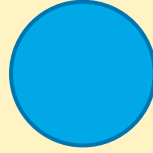
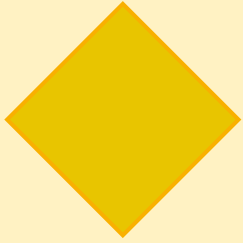
triangles

squares

Which shape didn't belong in either set?

Can you explain why?

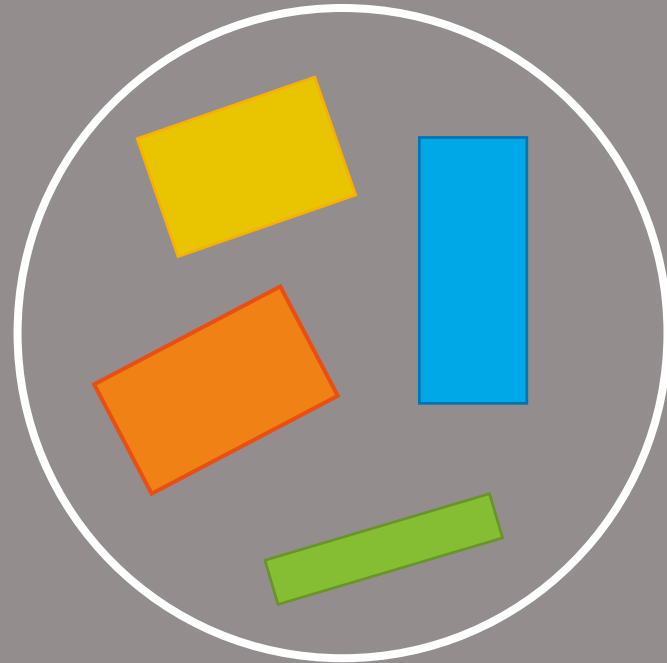
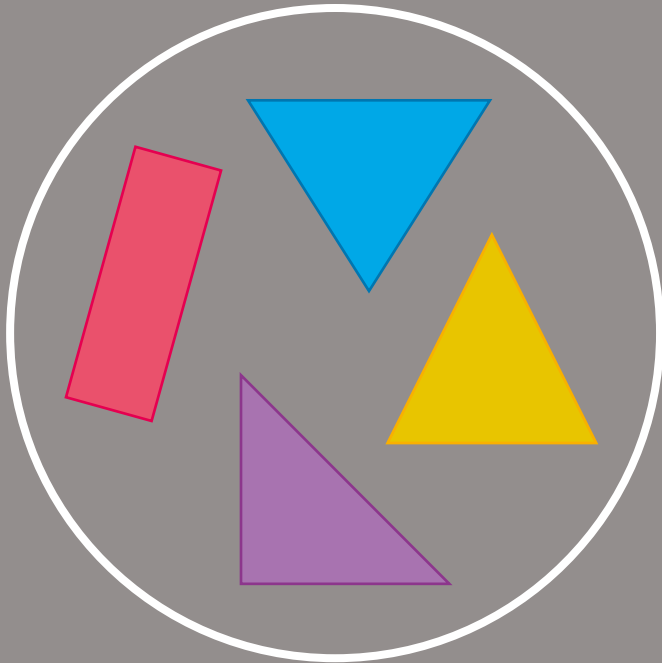
Can you sort these shapes into 2 groups?



What can you tell me about each group?

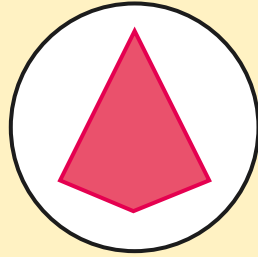
Have these shapes been sorted correctly?

Can you explain why?

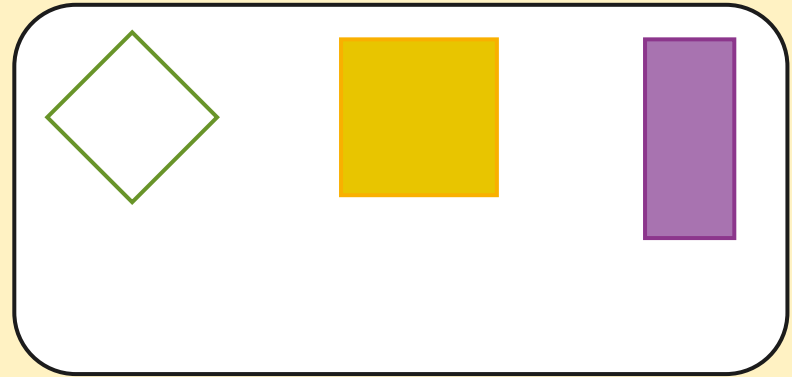
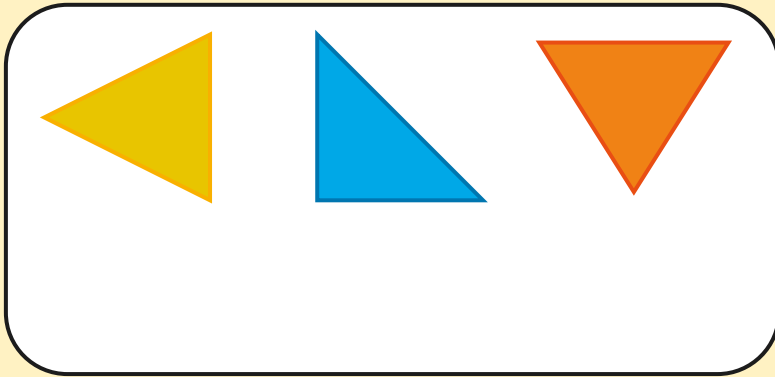


What would you change?

Can you add these shapes to the sets?



Where could they go?

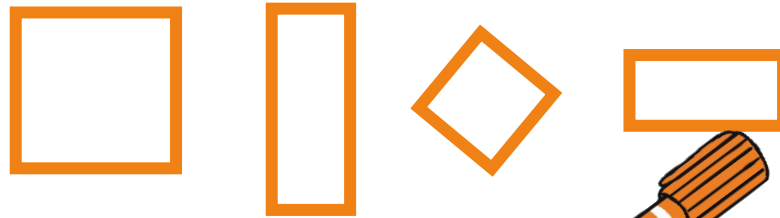


Can you explain why?

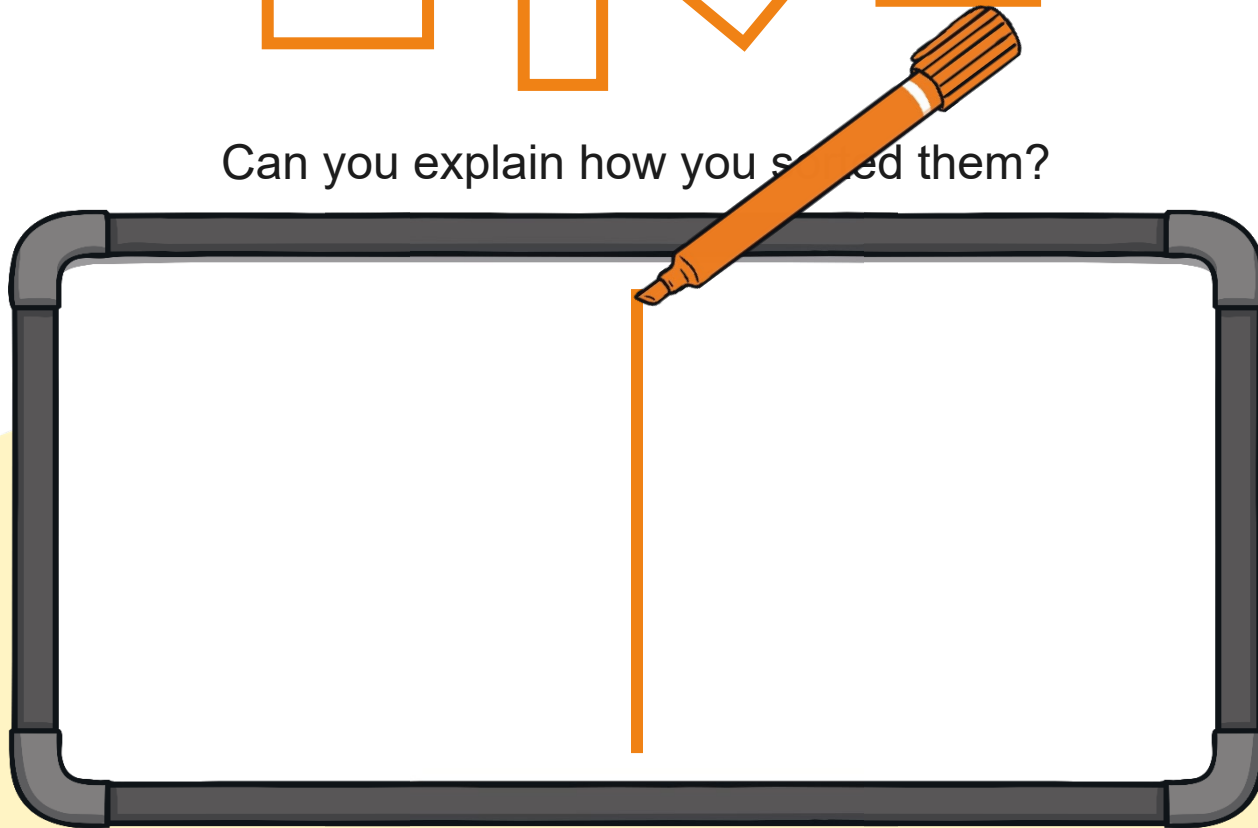
The shapes in this set have 4 sides and 4 corners.

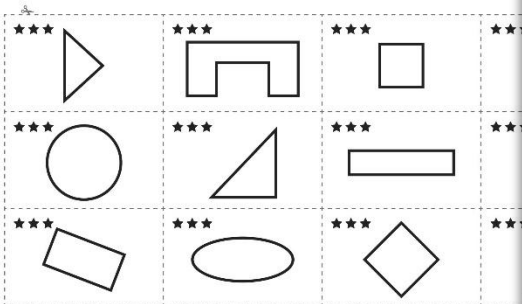
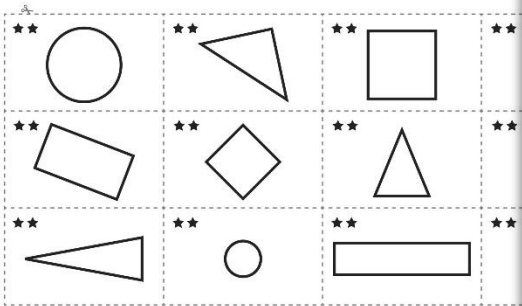
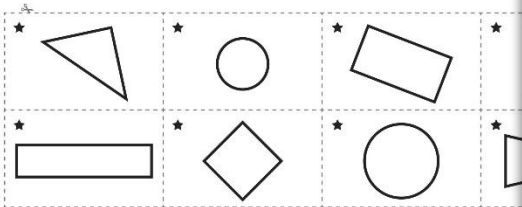
Draw a line from the top to the bottom of your board to make 2 spaces.

Find a way to sort the 2D shapes.



Can you explain how you sorted them?





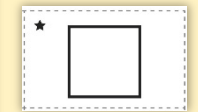
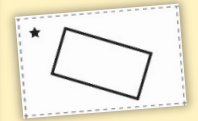
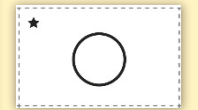
Sort 2D Shapes

To sort common 2D shapes.

Squares are special rectangles because each side is the same length.
For this activity, squares have been sorted into their own group.

- Cut out the shape pictures.
- Sort them into groups.
- Stick them when you have checked that they are in correct groups.

circles	squares
triangles	rectangles



Diving into Mastery

Dive in by completing your own activity!



Sort 2D Shapes

How would you sort these 2D shapes?

Draw lines around groups of shapes.

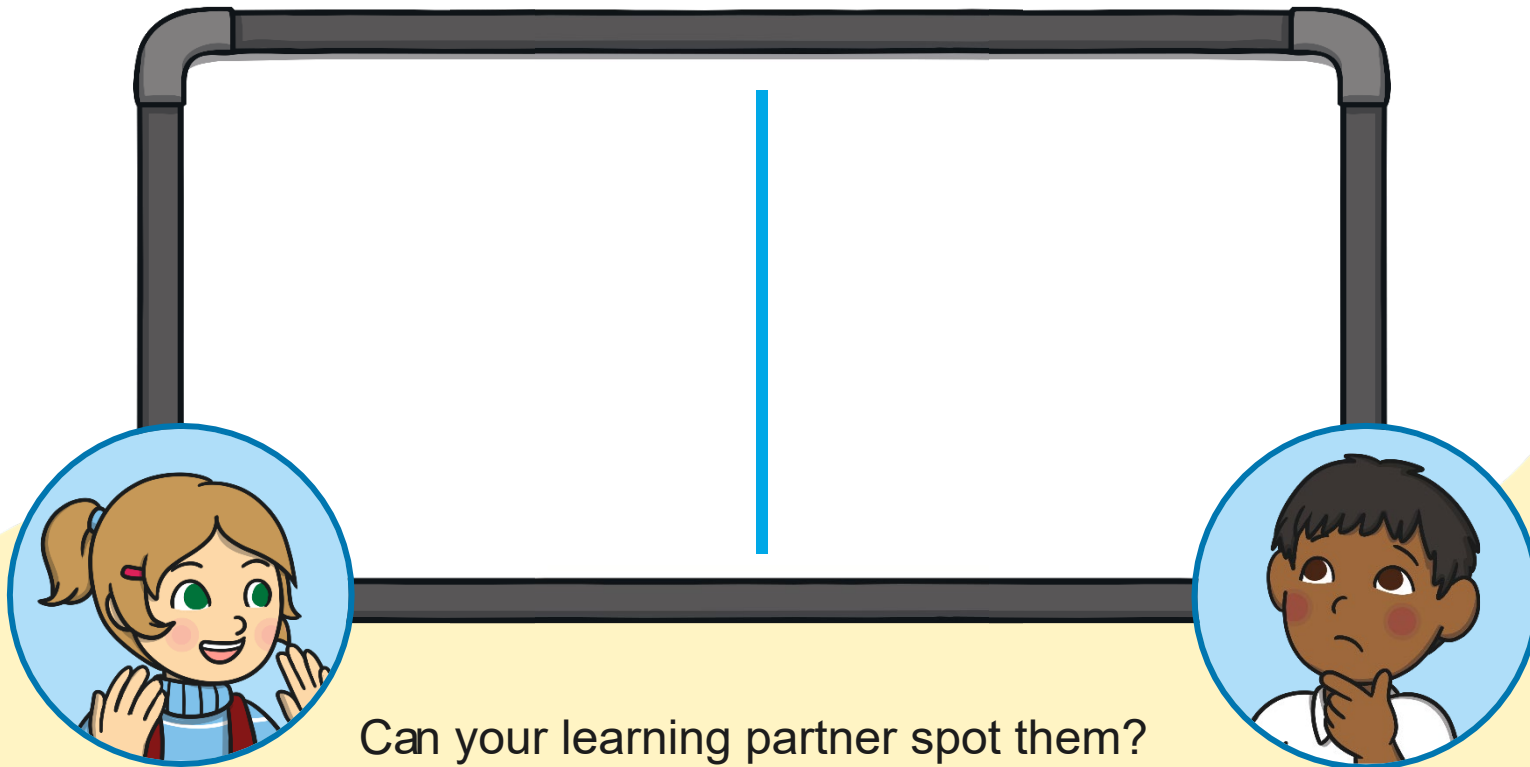
Draw lines to match the shapes with the sets.

squares	rectangles	circles	triangles

Which shapes don't belong to any of these sets?

Draw a set of triangles and a set of rectangles.

Include a mistake in each set.



Can your learning partner spot them?

How do they know?

Aim



- To sort common 2D shapes.

Success Criteria

- I can identify a shape that doesn't belong in a set.
- I can label groups of 2D shapes.
- I can sort 2D shapes into groups.
- I can add a shape to a set.



Aim: To sort common 2D shapes.				Date:					
				Delivered By:			Support:		
Success Criteria	Me	Friend	Teacher	T	PPA	S	I	AL	GP
I can identify a shape that doesn't belong in a set.				Notes/Evidence					
I can label groups of 2D shapes.									
I can sort 2D shapes into groups.									
I can add a shape to a set.									
Next Steps									
<ul style="list-style-type: none"> _____ _____ 									

T	Teacher	I	Independent
PPA	Planning, Preparation and Assessment	AL	Adult Led
S	Supply	GP	Guided Practice

Aim: To sort common 2D shapes.				Date:					
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I can identify a shape that doesn't belong in a set.				Notes/Evidence					
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I can sort 2D shapes into groups.									
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Next Steps									
<ul style="list-style-type: none"> _____ _____ 									

T	Teacher	I	Independent
PPA	Planning, Preparation and Assessment	AL	Adult Led
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Sort 2D Shapes

Adult Guidance with Question Prompts



Children sort common 2D shapes. Here, children are presented with a collection of 2D shapes shown in different orientations, colours and sizes. They draw lines around them to make groups of 2D shapes. Children then add shapes to sets and identify those that look similar but don't have the same properties as the 2D shape. Children will need 2D shapes to continue their investigations.

Look at the shapes in the green line.

Why have these shapes been grouped together?

What is the same about the shapes in the group?

What's different?

Can you draw lines to group the other shapes?

What can you tell me about the groups that you have made?

Could you have grouped them in a different way?

How have these shapes been sorted?

Have they been sorted correctly? How do you know?

Some shapes haven't been put into sets yet.

Look at one shape at a time. What shape does it remind you of?

What is the same about it? What is different? Does it belong in the set?

Why? Why not? If the shape belongs to a set, draw a line to match it.

Make groups of 2D shapes. Give a friend some shapes to add to the sets.

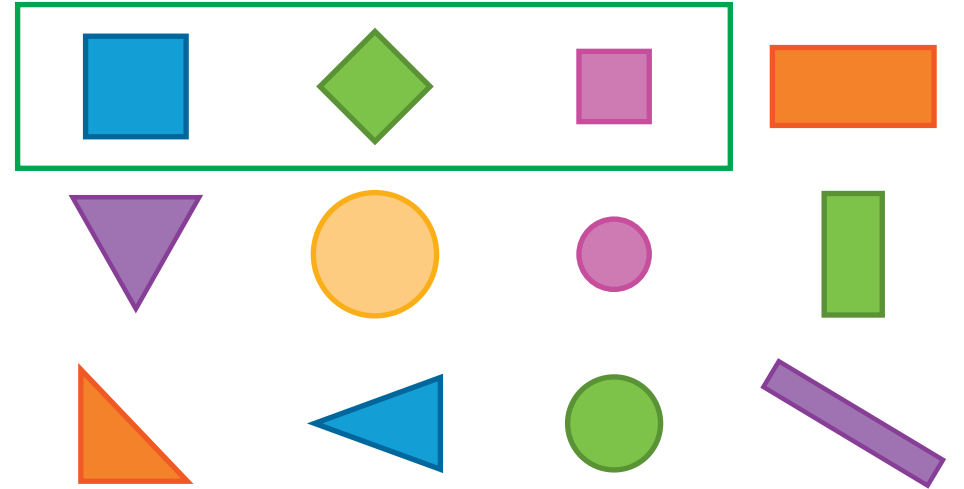
Where did they put them? Can they explain why?

Sort 2D Shapes



How would you sort these 2D shapes?

Draw lines around groups of shapes.



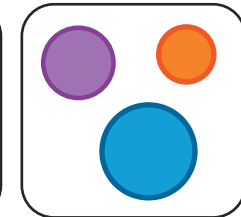
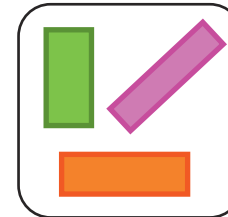
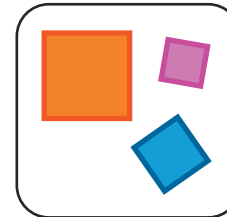
Draw lines to match the shapes with the sets.

squares

rectangles

circles

triangles



Which shapes don't belong to any of these sets?

Sort 2D Shapes

Adult Guidance with Question Prompts



Children sort common 2D shapes. Here, children are presented with a collection of 2D shapes shown in different orientations, colours and sizes. They apply their reasoning skills to investigate how they could sort the shapes to make one or two groups. The children then decide whether shapes have been grouped and labelled. Children will need 2D shapes to continue their investigations.

What can you tell me about these shapes?

What is the same about them? What is different?

Can these shapes be used to make one group?

How would you label it?

Can these shapes be used to make two groups?

Can you draw a line around the shapes to show the two groups?

How would you label them?

Do all of these shapes belong in the set? Why? Why not?

What shapes do you need to move from the sets?

Can you add a shape to the set?

What do you need to remember when you draw the shape?

Make groups of 2D shapes. Include an odd one out.

Ask a friend to label the groups.

Can they spot the odd one out?

Ask them to add a shape to each set.

Sort 2D Shapes



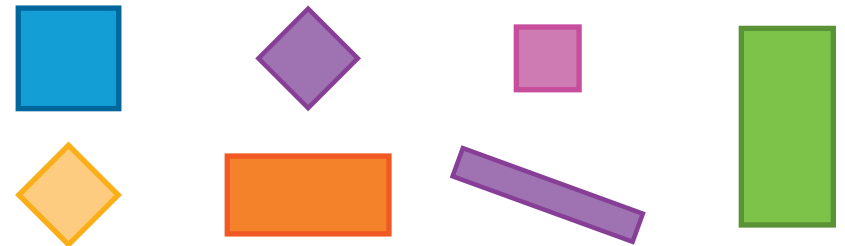
Meg

I can make 1 group with these shapes.

Tom



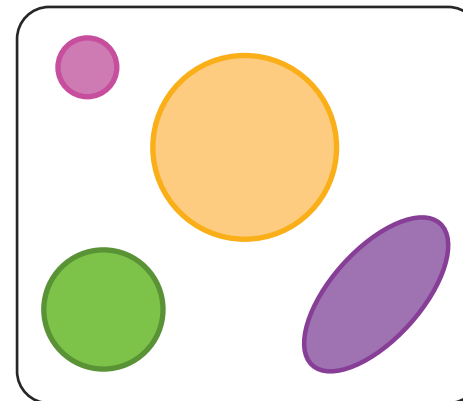
I can make 2 groups.



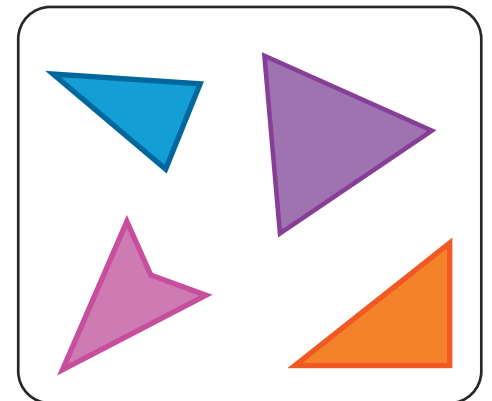
Who is correct? Prove it.

Meg and Tom have sorted the shapes into sets.

circles



triangles



Do you agree with them? Explain your answer.

Sort 2D Shapes

Adult Guidance with Question Prompts



Children are presented with a collection of 2D shapes shown in different orientations, colours and sizes. They demonstrate their problem-solving skills by investigating how many different ways the shapes could be sorted into groups. Children will need 2D shapes to continue their investigations.

What is the challenge asking you to do?

What's the first idea that pops into your head?

How would you label each group?

Would there be a place for each shape?

**Can you think of a different way to sort these shapes? Show me.
Would each shape belong to a group?**

Is there another way?

Can you prove it?

Can you sort the shapes by counting anything?

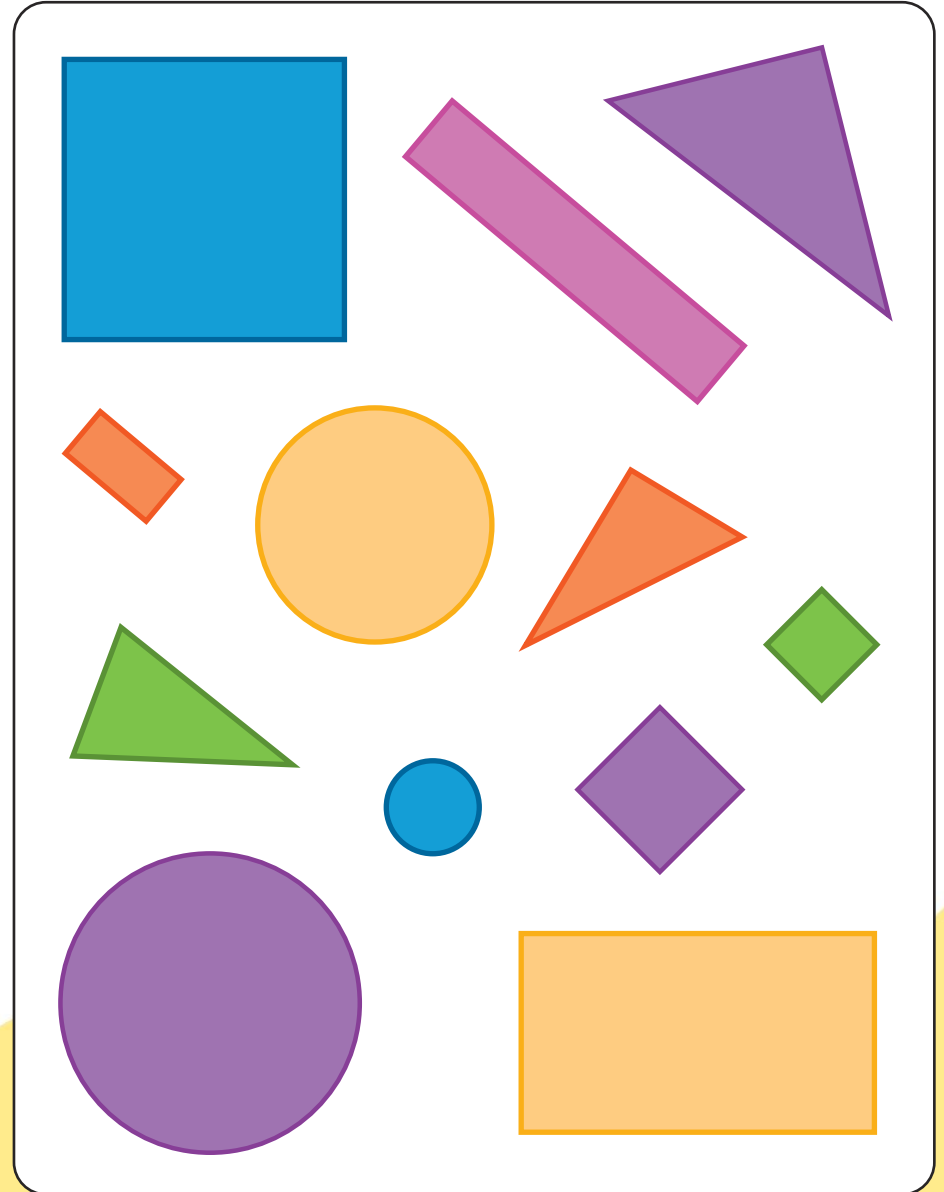
Encourage children to continue to explore different possibilities and to explain their reasoning.

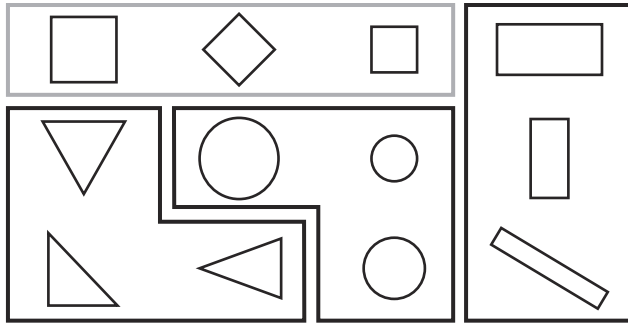
Make a collection of 2D shapes and investigate different ways to sort them. Working with a learning partner will help you talk about ideas and explain your reasoning.

Sort 2D Shapes



How many different ways
can you find to sort these shapes?



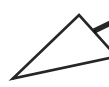
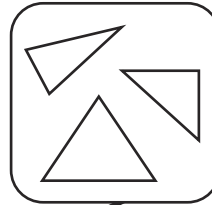
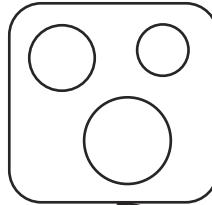
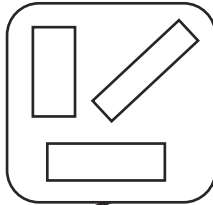
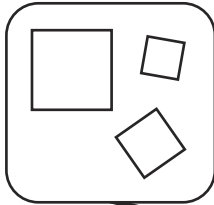


squares

rectangles

circles

triangles



They are both correct. They could also be sorted into two groups: rectangles and squares. Because squares are a special type of rectangle, all of the shapes could be sorted into one group: rectangles.



They have made a mistake when grouping and labelling the sets. The first set does not contain all circles. The purple shape should be removed. The second set does not contain all triangles. The pink shape should be removed.

This is an open challenge. Encourage children to explain their reasoning as they discuss possibilities. Some possibilities of how the shapes could be sorted are:



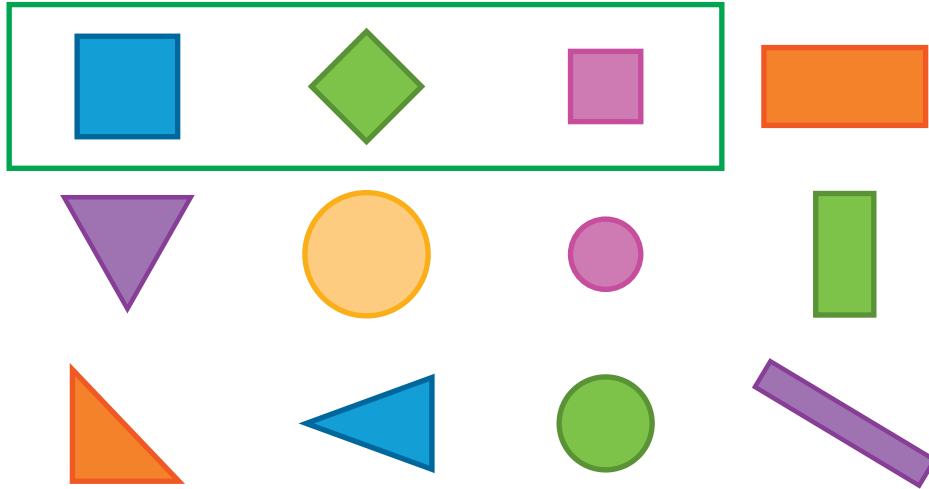
- according to their colour
- comparative size
- shape
- number of sides
- length of sides
- straight or curved sides
- number of corners

Sort 2D Shapes



How would you sort these 2D shapes?

Draw lines around groups of shapes.



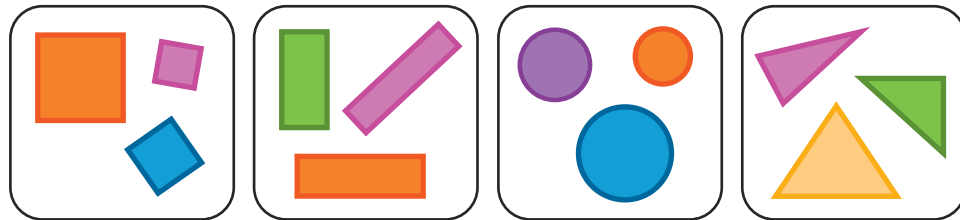
Draw lines to match the shapes with the sets.

squares

rectangles

circles

triangles



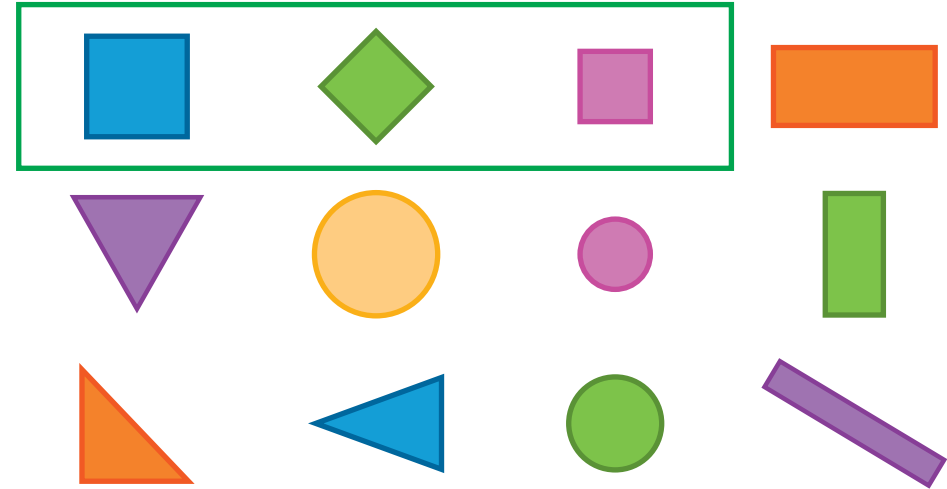
Which shapes don't belong to any of these sets?

Sort 2D Shapes



How would you sort these 2D shapes?

Draw lines around groups of shapes.



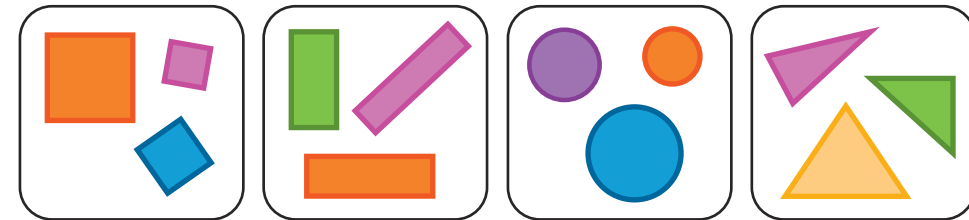
Draw lines to match the shapes with the sets.

squares

rectangles

circles

triangles



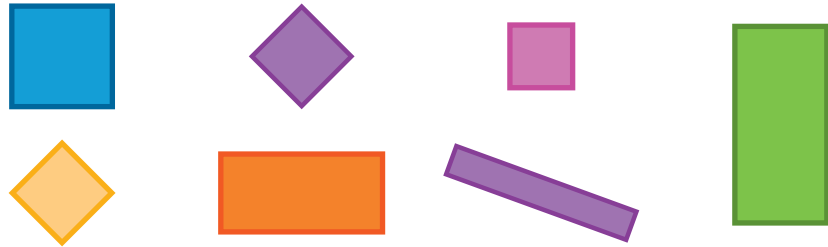
Which shapes don't belong to any of these sets?

Sort 2D Shapes



I can make 1 group with these shapes.

Tom

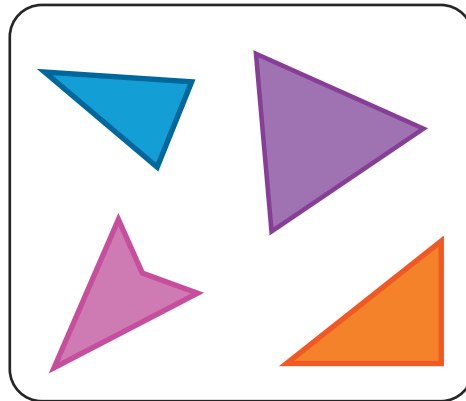
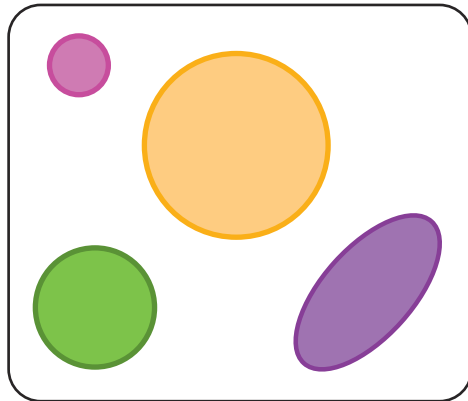


Who is correct? Prove it.

Meg and Tom have sorted the shapes into sets.

circles

triangles



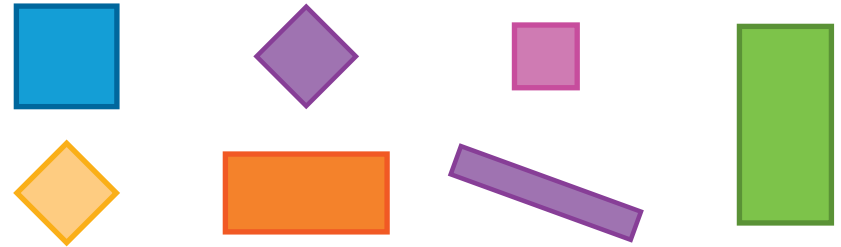
Do you agree with them? Explain your answer.

Sort 2D Shapes



I can make 1 group with these shapes.

Tom

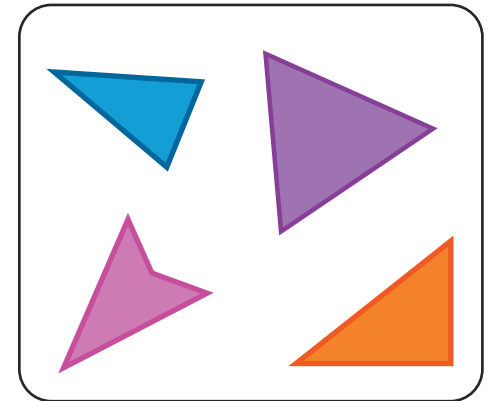
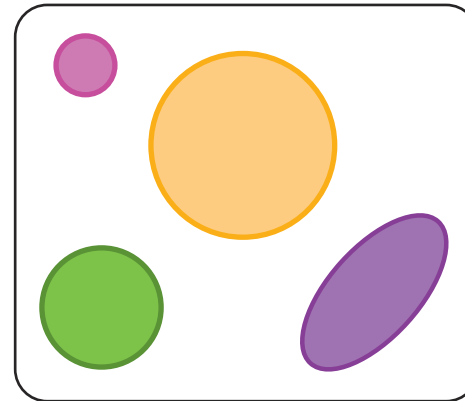


Who is correct? Prove it.

Meg and Tom have sorted the shapes into sets.

circles

triangles

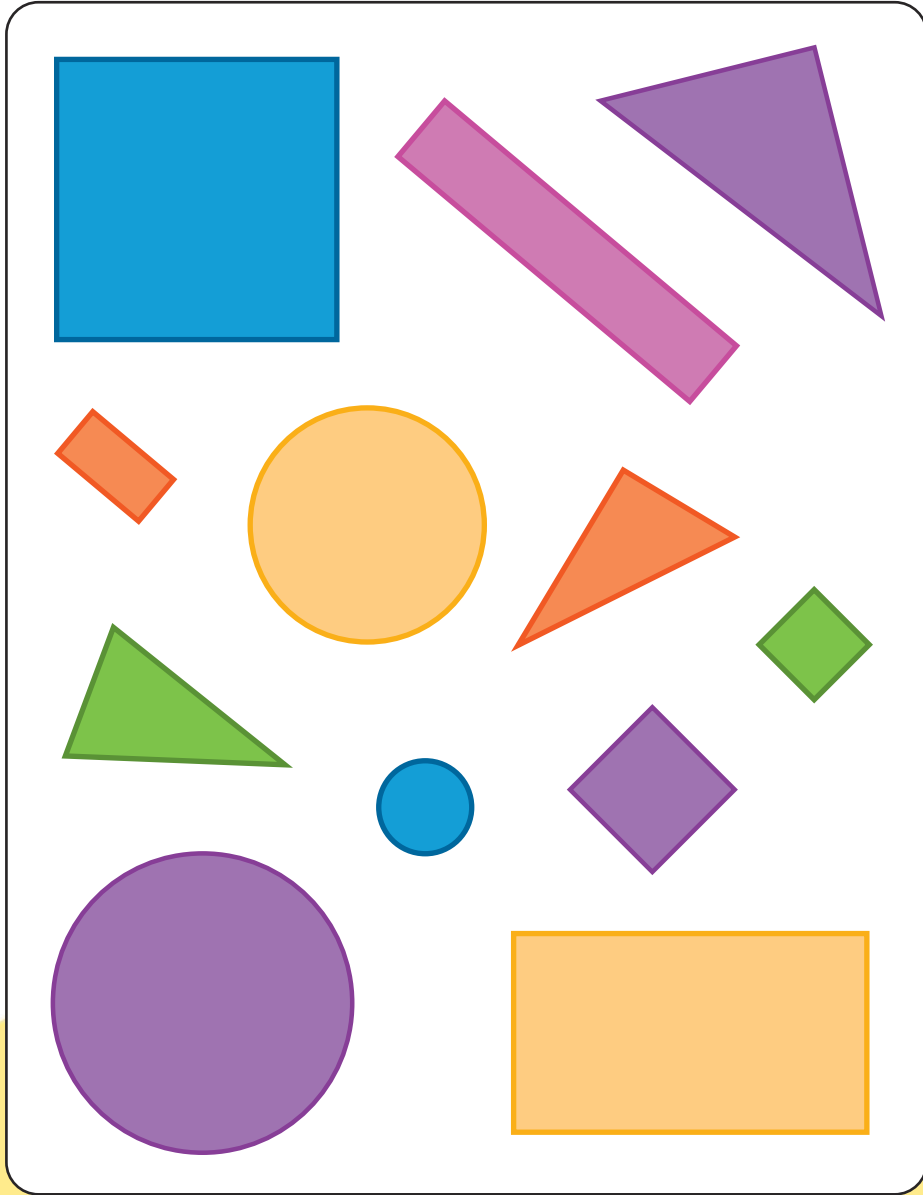


Do you agree with them? Explain your answer.

Sort 2D Shapes



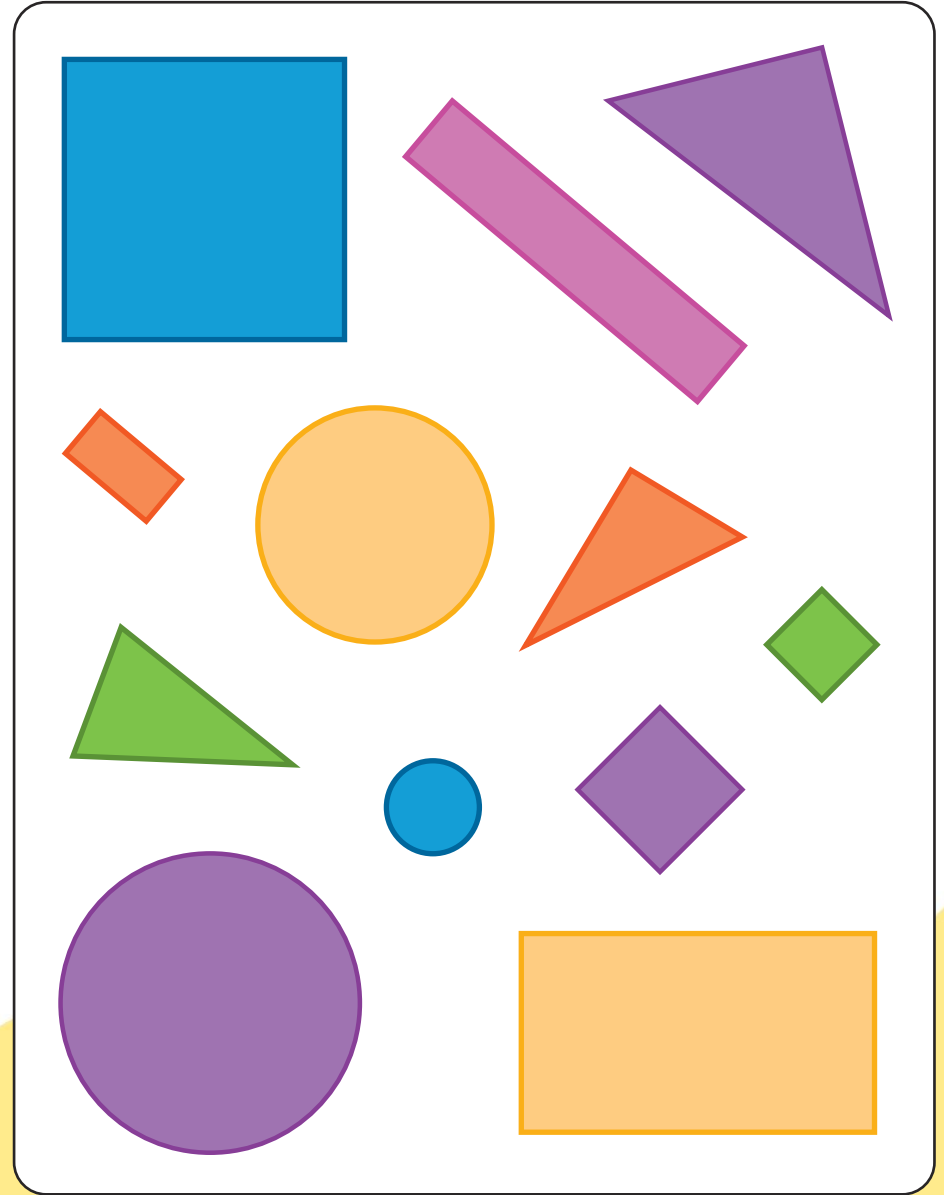
How many different ways
can you find to sort these shapes?

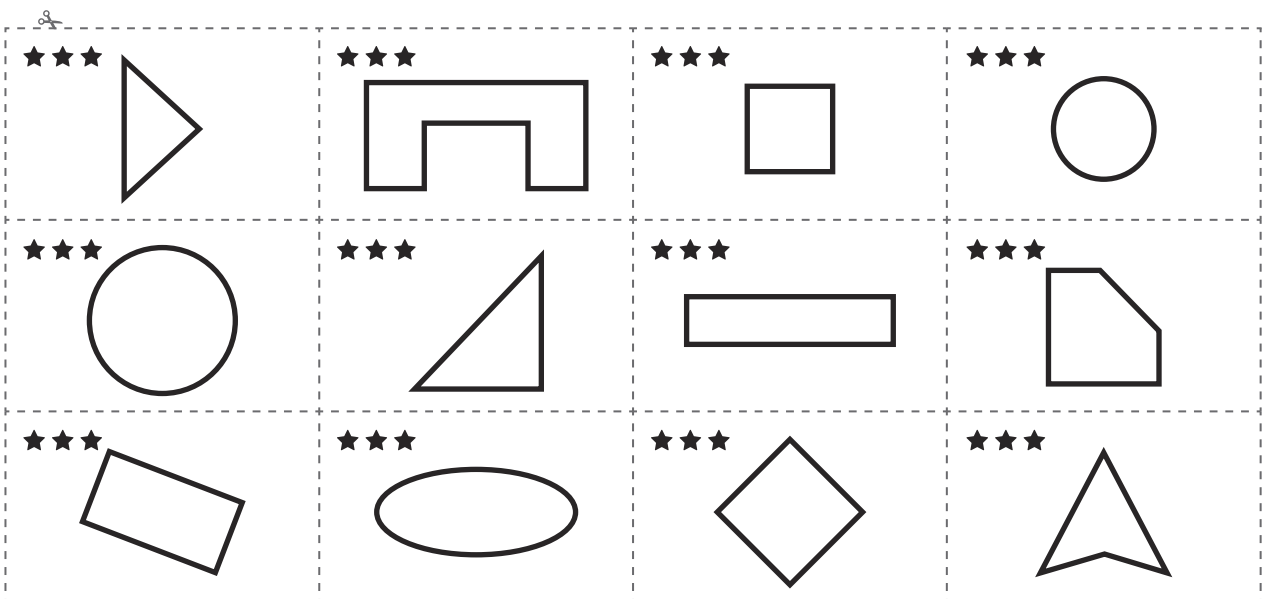
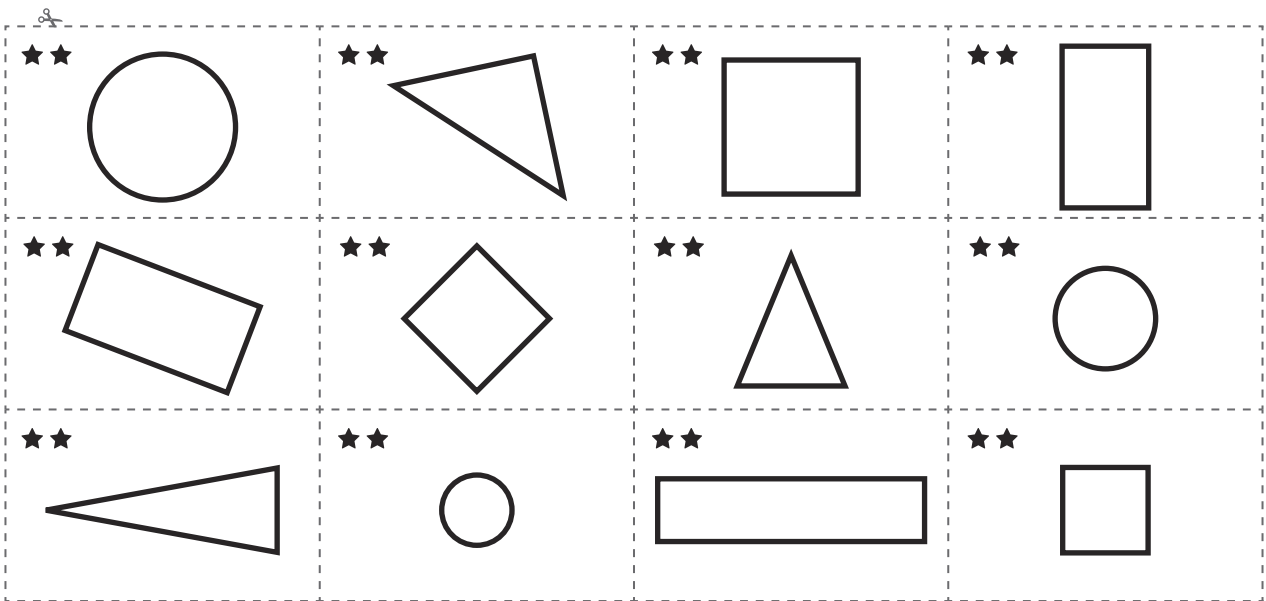
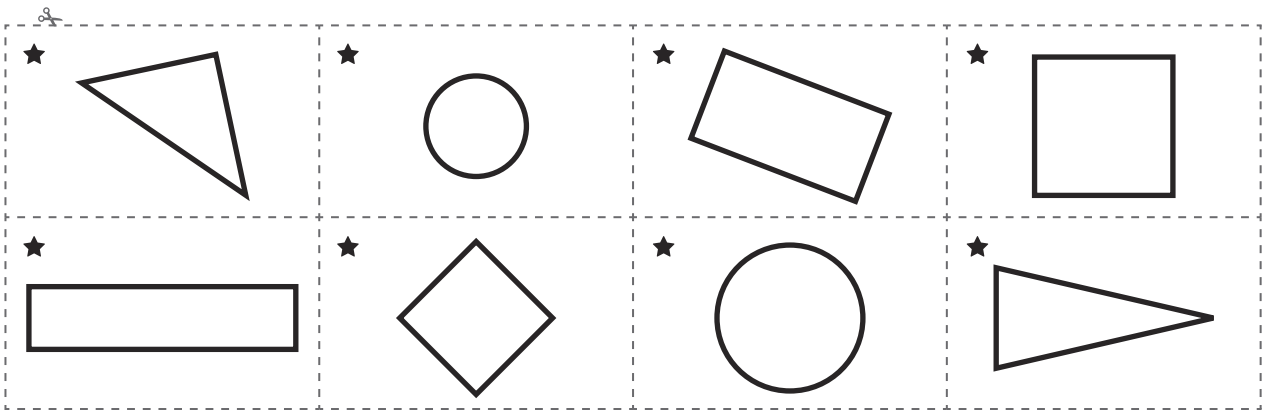


Sort 2D Shapes



How many different ways
can you find to sort these shapes?





Sort 2D Shapes

To sort common 2D shapes.



Squares are special rectangles because each side is the same length.
For this activity, squares have been sorted into their own group.

- Cut out the shape pictures.
- Sort them into groups.
- Stick them when you have checked that they are in correct groups.

circles

squares

triangles

rectangles

Sort 2D Shapes

Tick the labels to show how the shapes have been sorted.

triangles circles squares

triangles circles squares

Have these shapes been sorted correctly?

Put a cross on any shape that doesn't belong in a group.

rectangles

triangles

Can you draw another shape in each set?

circles

rectangles

triangles

squares

Sort 2D Shapes

To sort common 2D shapes.



Squares are special rectangles because each side is the same length.
For this activity, squares have been sorted into their own group.

- Cut out the shape pictures.
- Sort them into groups.
- Stick them when you have checked that they are in correct groups.

triangles

squares

circles

rectangles

Label the sets to show how the shapes have been sorted.

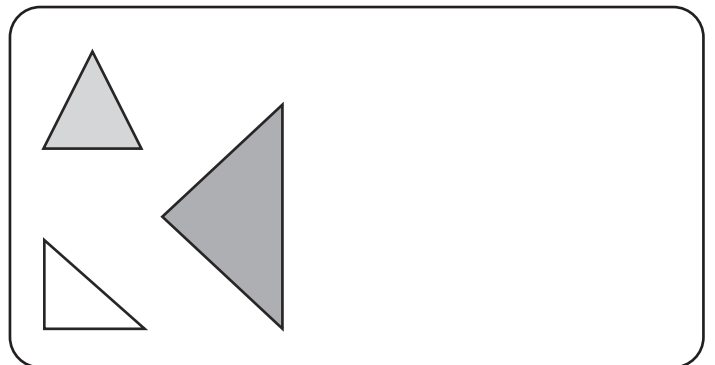
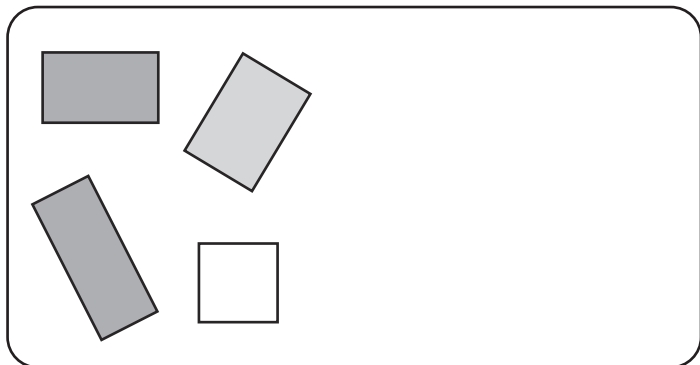
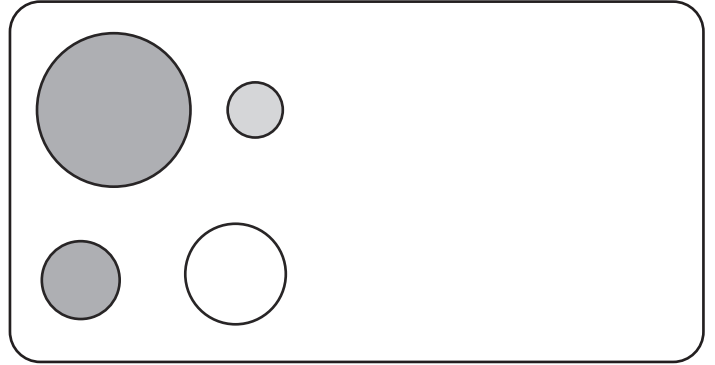
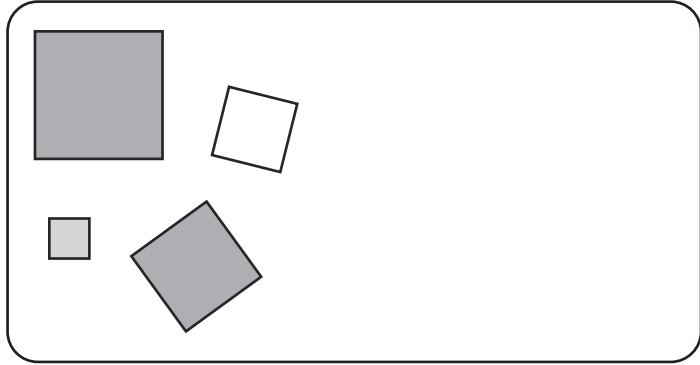
triangles

circles

squares

rectangles

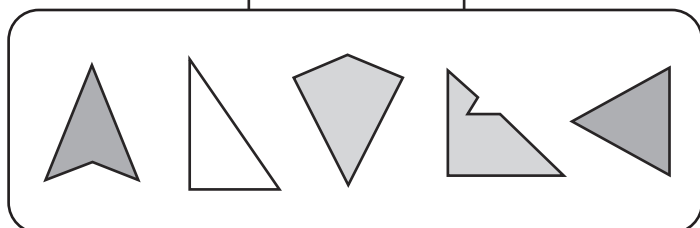
Can you draw another shape in each set?



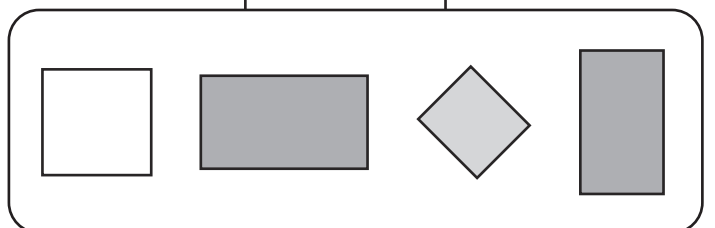
Have these shapes been sorted correctly?

Put a cross on any shape that doesn't belong in a group.

triangles



squares



Sort 2D Shapes

To sort common 2D shapes.



Squares are special rectangles because each side is the same length.
For this activity, squares have been sorted into their own group.

- Cut out the shape pictures. Sort them into groups.
- Stick them when you have checked that they are in correct groups.
- Stick shapes that don't belong in any set away from the groups.

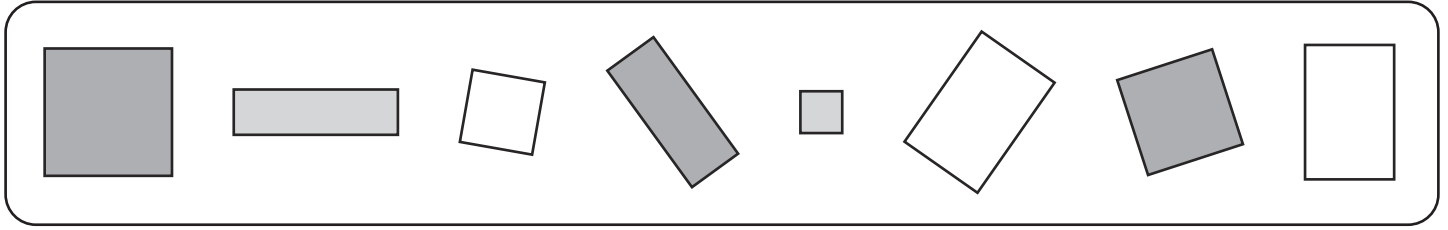
rectangles

circles

squares

triangles

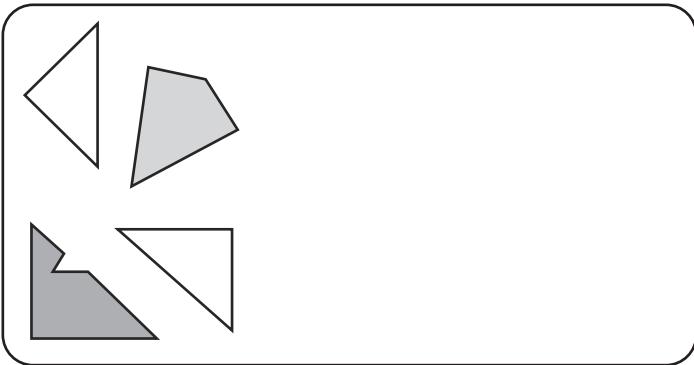
How many squares can you find in this group of rectangles?

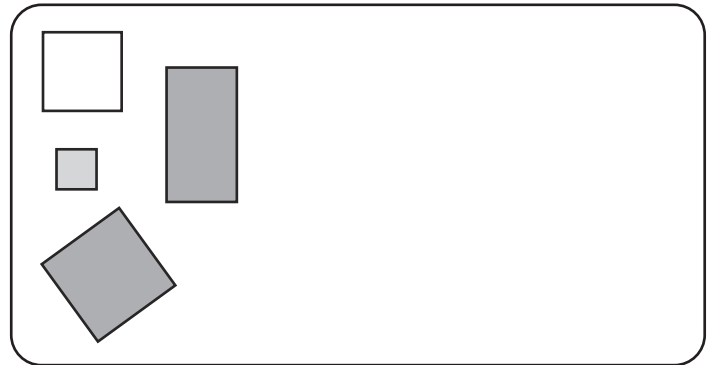


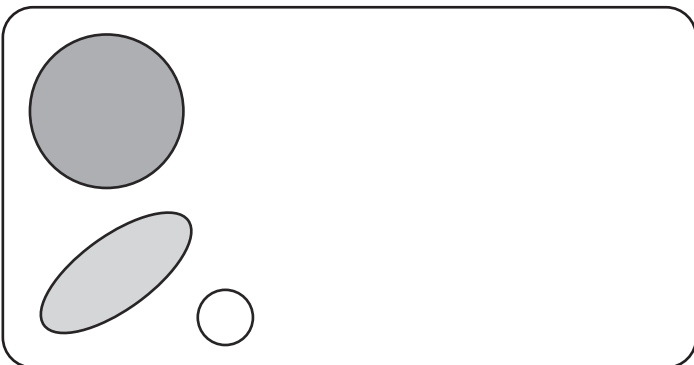
Label the sets to show how the shapes have been sorted.

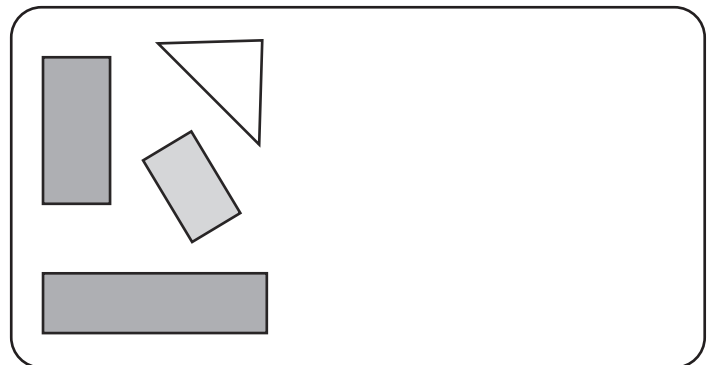


Put a cross on any shape that doesn't belong in a group.
Can you draw another shape in each set?



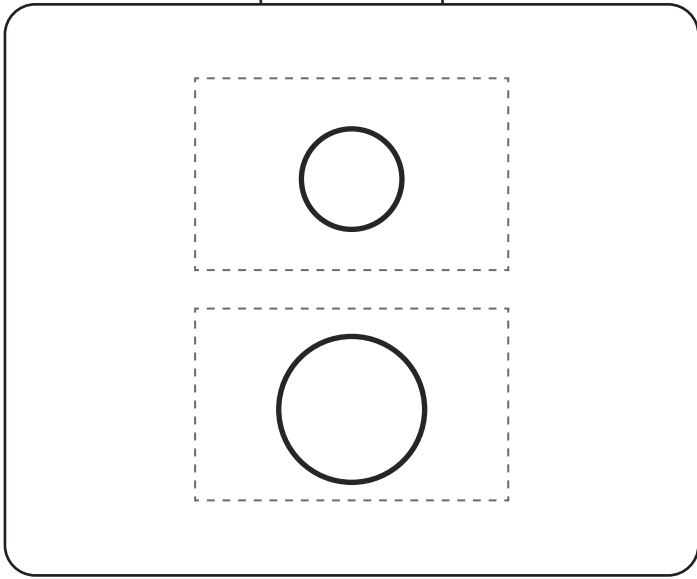




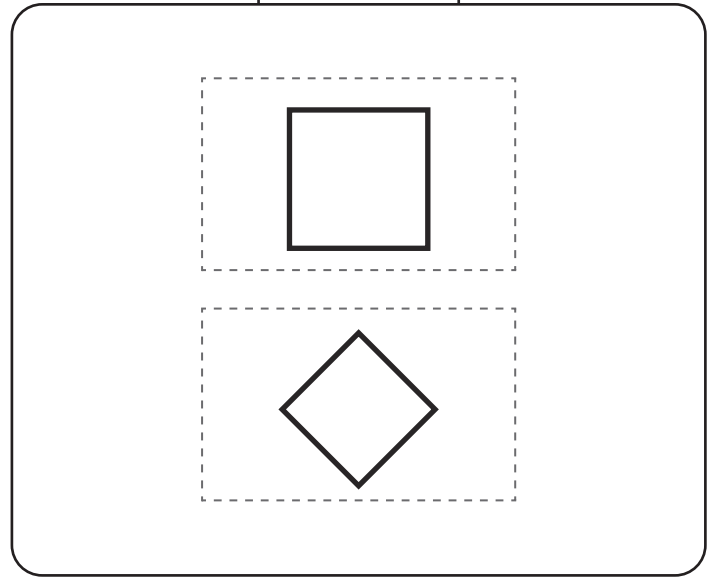


Answers

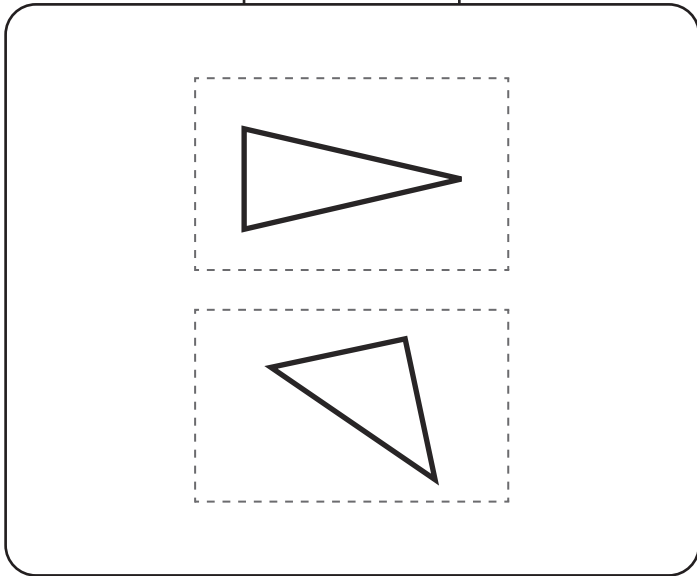
circles



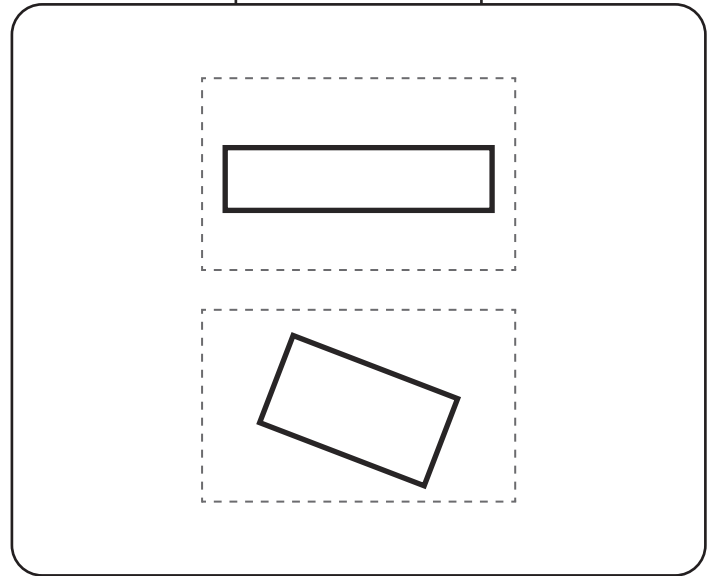
squares



triangles



rectangles



Tick the labels to show how the shapes have been sorted.

triangles circles squares

triangles circles squares

Have these shapes been sorted correctly?

Mark shapes that don't belong in the groups with a cross.

rectangles

triangles

Tick the labels to show how the shapes have been sorted.

circles

Children draw a representation of a circle.

rectangles

Children draw a representation of rectangles with 4 corners and 4 straight sides.

triangles

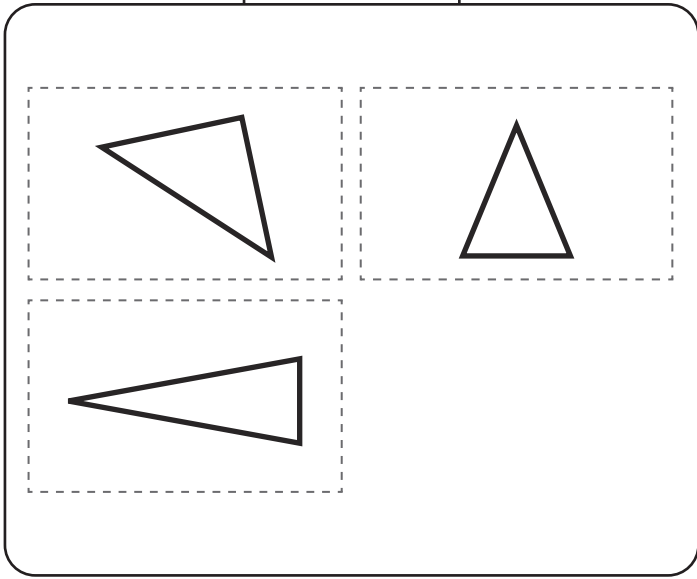
Children draw a representation of a triangle with 3 corners and 3 straight sides.

squares

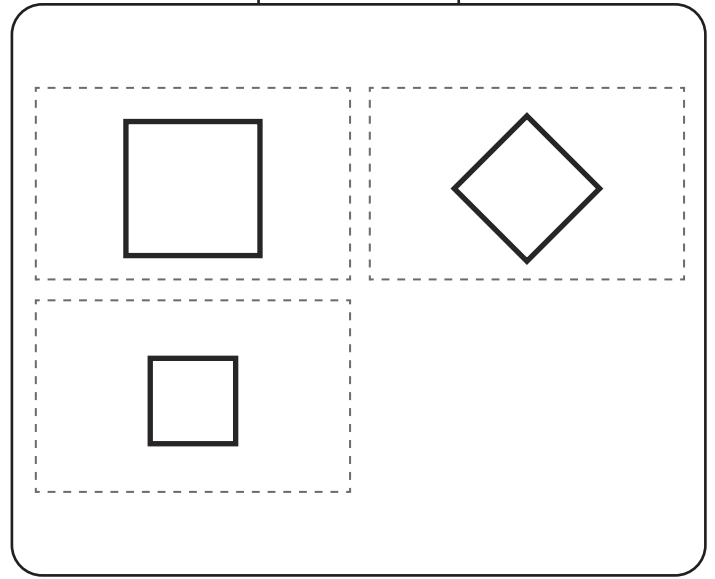
Children draw a representation of a squares with 4 corners and 4 straight sides of the same length.

Answers

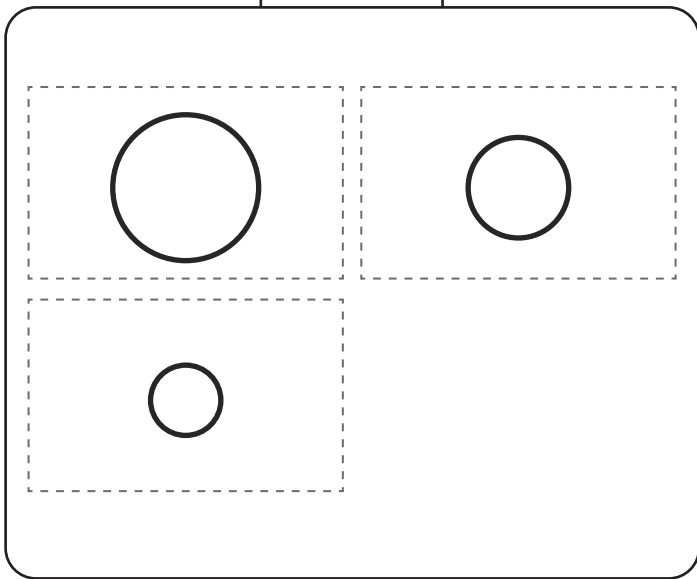
triangles



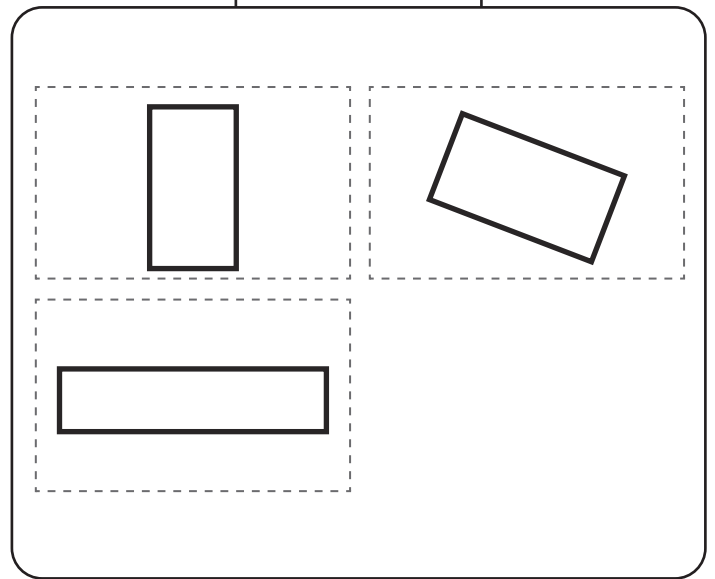
squares



circles



rectangles

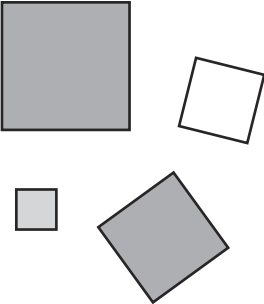


Label the sets to show how the shapes have been sorted.

- triangles
- circles
- squares
- rectangles

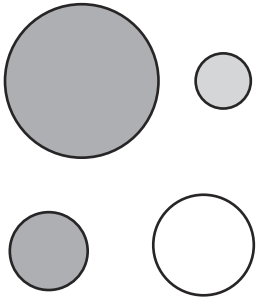
Can you draw another shape in each set?

squares



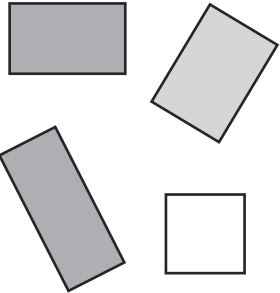
Children draw a representation of a square with 4 corners and 4 straight sides of the same length.

circles



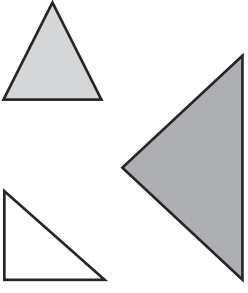
Children draw a representation of a circle.

rectangles



Children draw representation of a rectangle with 4 corners and 4 straight sides.

triangles




Children draw a representation of a triangle with 3 corners and 3 straight sides.

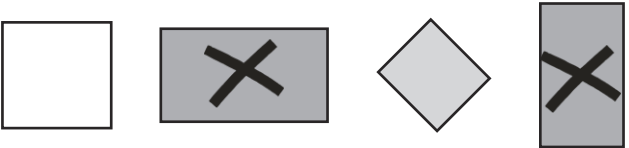
Have these shapes been sorted correctly?

Mark shapes that don't belong in the groups with a cross.

triangles

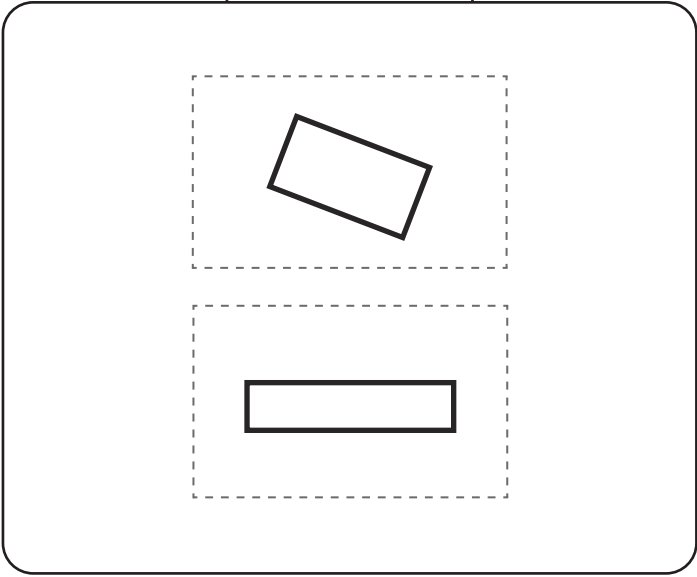


squares

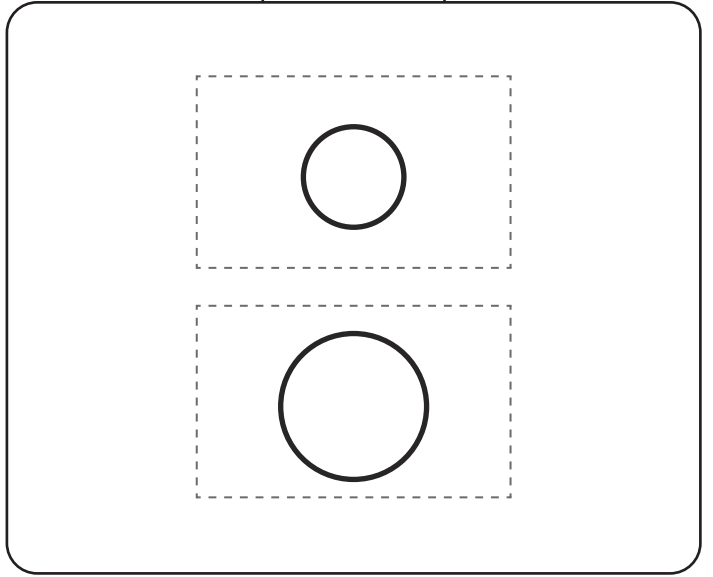


Answers

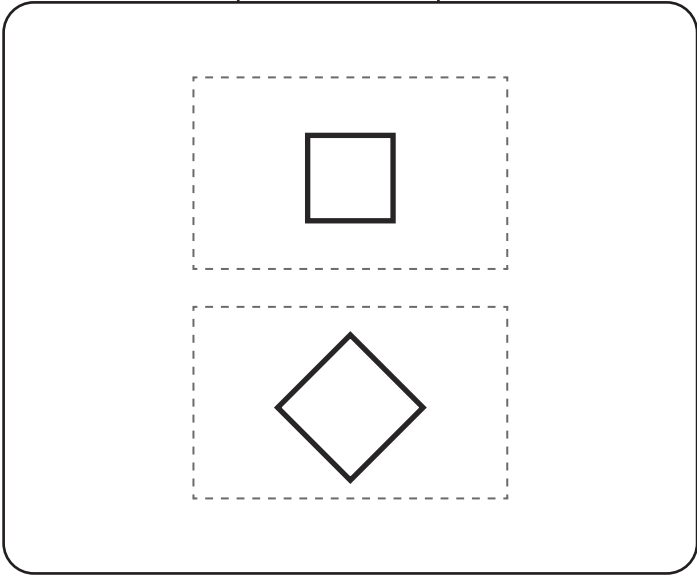
rectangles



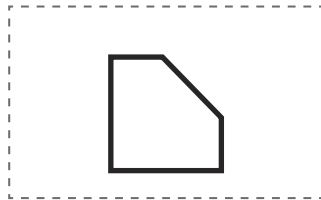
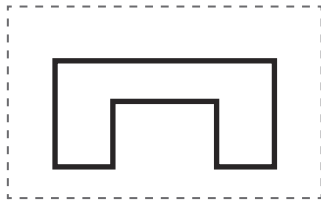
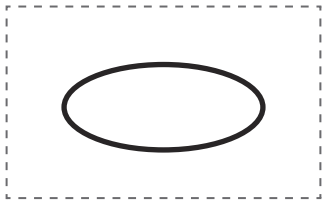
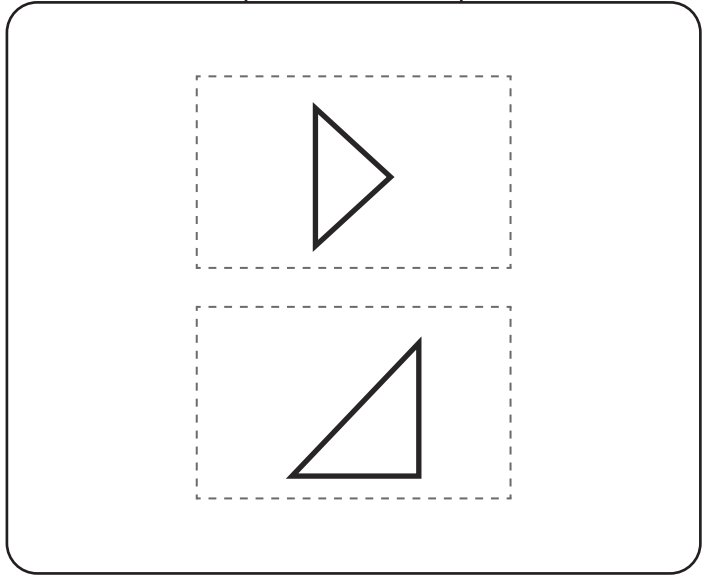
circles



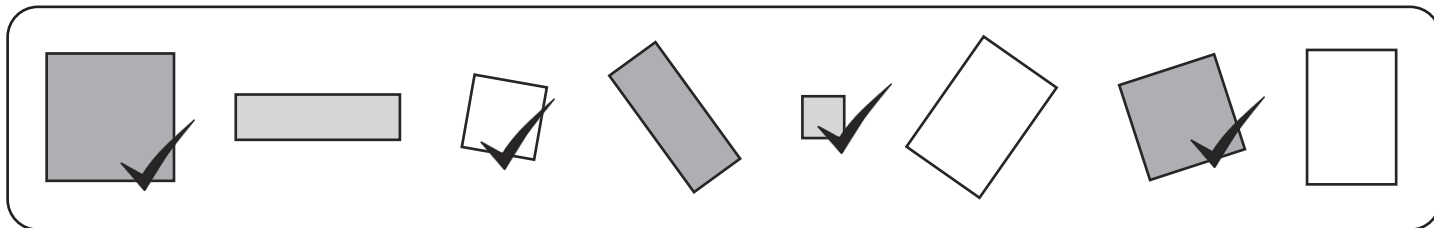
squares



triangles



How many squares can you find in this group of rectangles? 4



Label the sets to show how the shapes have been sorted.



Mark shapes that don't belong in the sets with a cross.

Can you draw another shape in each set?



Children draw a representation of a triangle with 3 corners and 3 straight sides.



Children draw a representation of a square with 4 corners and 4 straight sides of the same length.



Children draw representation of a circle.



Children draw a representation of a rectangle with 4 corners and 4 straight sides.

Properties of Shape | Sort 2D Shapes

To sort common 2D shapes.		
I can identify a shape that doesn't belong in a set.		
I can label groups of 2D shapes.		
I can sort 2D shapes into groups.		
I can add a shape to a set.		

Properties of Shape | Sort 2D Shapes

To sort common 2D shapes.		
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