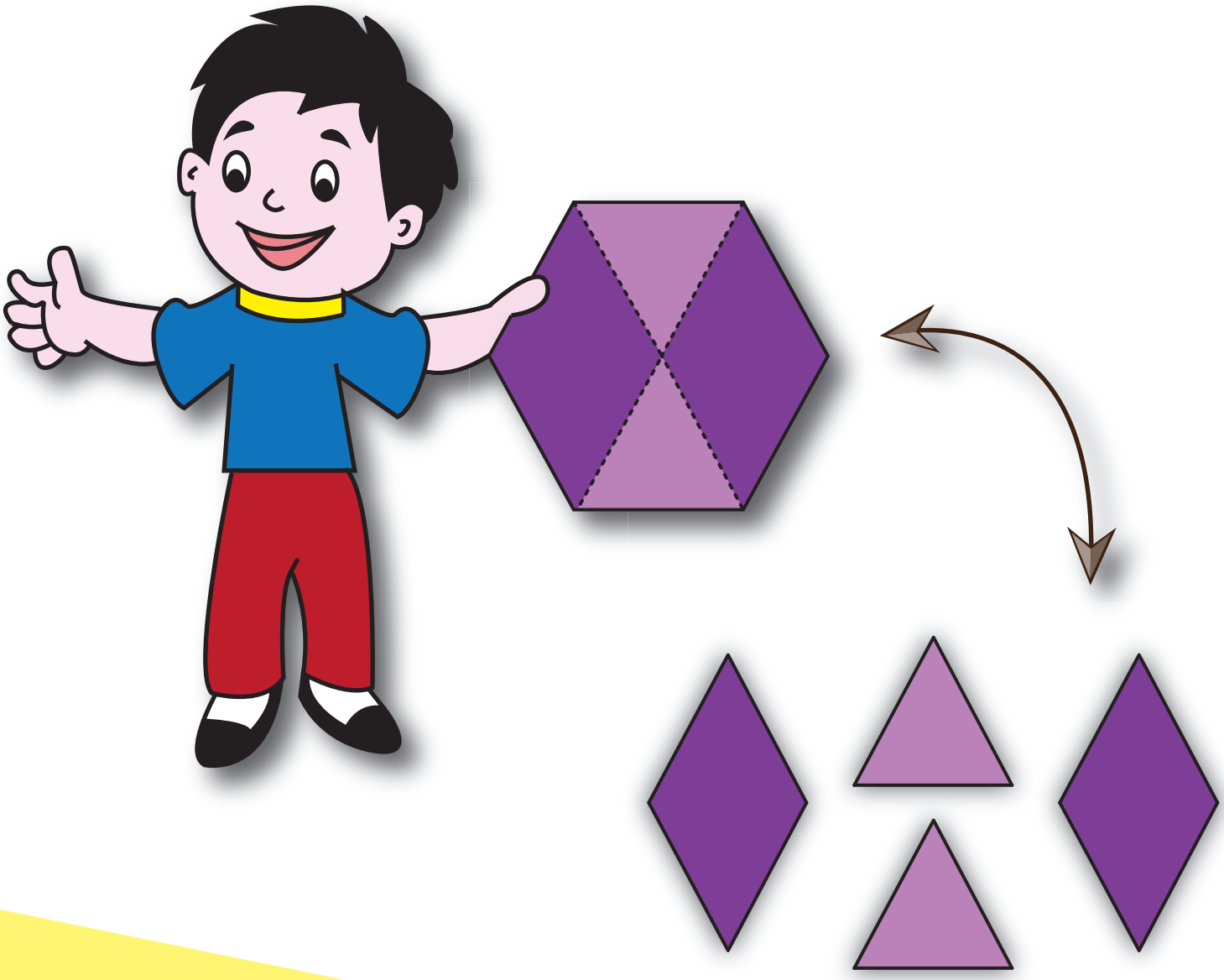
KINDERGARTEN

GEOMETRY

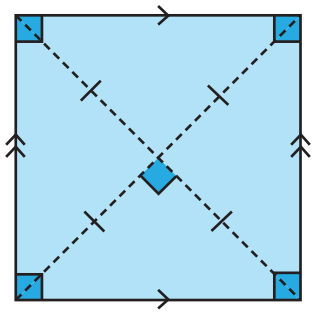
WORKBOOK 3



Properties of 2D Shapes

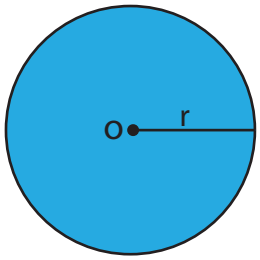
Date _____

Square



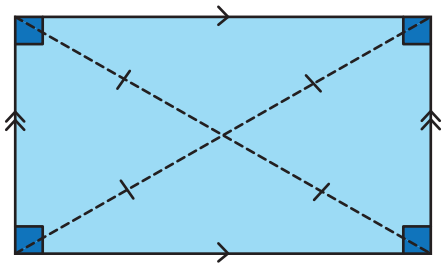
- Four-sided regular quadrilateral.
- Four vertices, four angles.
- All sides are equal.
- Opposite sides are parallel.
- Diagonals bisect each other at right angles (90°) and are equal.

Circle



- No sides and no angles.
- Any line drawn from the centre of the circle is called its radius.
- The diameter of a circle bisects the circle into two equal halves.

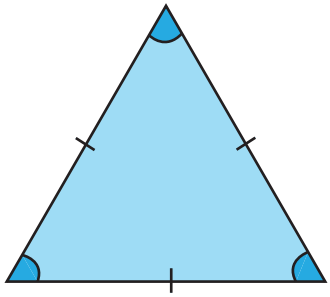
Rectangle



- Four-sided quadrilateral.
- Four vertices, four angles - all angles are 90°.
- Opposite sides are parallel and are of equal length.
- The diagonals are equal in length.

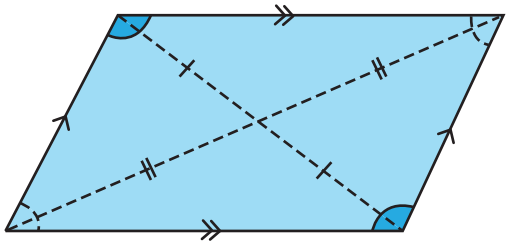
Date _____

Equilateral Triangle



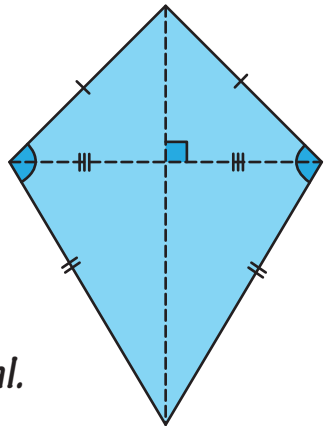
- All three sides are equal.
- Three vertices, three angles.
- All three internal angles are 60° each.

Parallelogram



- Four sided quadrilateral.
- Four vertices, four angles.
- Opposite sides are equal in length and are parallel.
- The diagonals bisect each other and the diagonally opposite angles are equal.

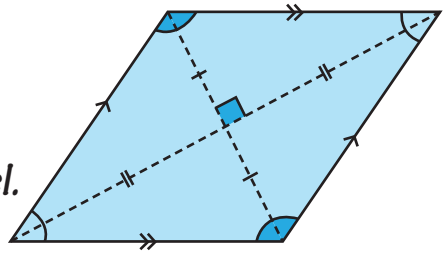
Kite



- Four-sided quadrilateral.
- Four vertices, four angles.
- Two pairs of its sides are of equal length.
- One pair of diagonally opposite angles are equal.
- Only one diagonal is bisected by the other and the diagonals cross at 90.

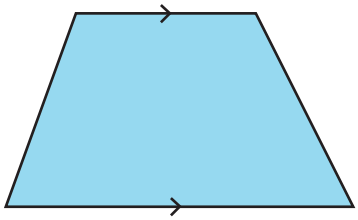
Date _____

Rhombus



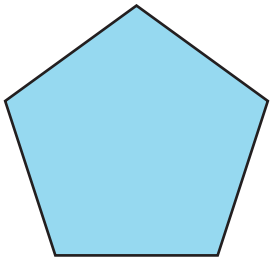
- Four-sided quadrilateral.
- Four vertices, four angles.
- All sides are equal and opposite sides are parallel.
- Diagonally opposite angles are equal and the diagonals bisect at 90°.

Trapezoid



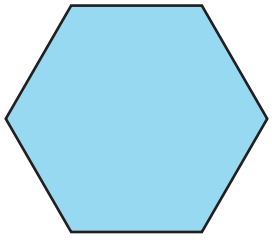
- Four-sided quadrilateral.
- One pair of opposite sides is parallel.
- Four vertices, four angles.

Pentagon



- Five-sided polygon.
- Five vertices, five angles.
- In a regular pentagon all sides are equal and each angle is 108°.

Hexagon



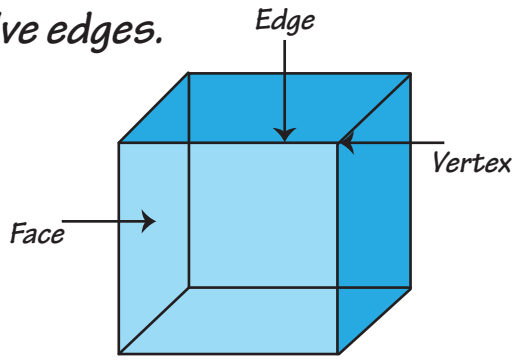
- Six-sided polygon.
- Six vertices, six angles.
- In a regular hexagon all sides are equal and each angle is 120°.
- Opposite sides are parallel.

Properties of 3D Shapes

Date _____

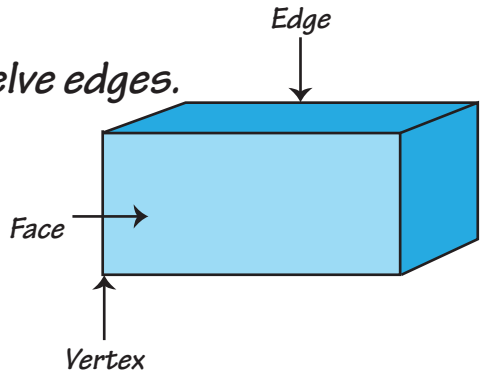
Cube

- A cube has six faces, eight vertices and twelve edges.
- All the faces of a cube are squares.
- All the faces meet four other faces.
- All the plane angles are right angles.
- Opposite edges on faces of a cube are parallel to each other.



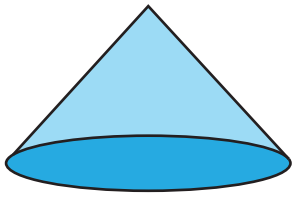
Cuboid

- A cuboid has six faces, eight vertices and twelve edges.
- All the faces meet four other faces.
- All the plane angles are right angles.
- All of its faces are rectangular and all angles are right angles.
- Pair of opposite faces are equal.



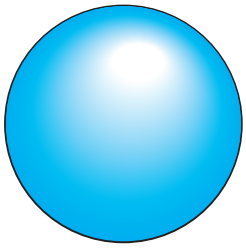
Cone

- A cone has one face, one edge and one vertex.
- It has circular base.
- It has only one curved surface.



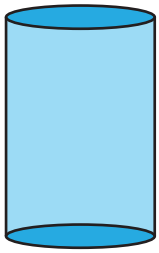
Date _____

Sphere



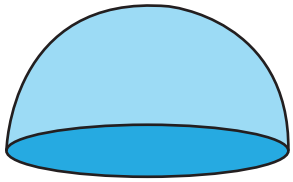
- Sphere is perfectly symmetrical and rounded.
- Every point on the surface of the sphere is equidistant from its centre.
- The distance from the surface to the centre is called the radius of the sphere.

Cylinder



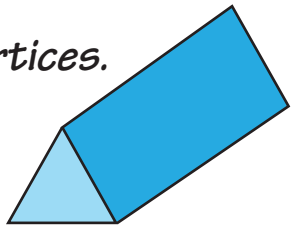
- A cylinder has two faces, two edges and no vertices.
- Two equal circles on its ends.
- It has only one curved surface.

Hemisphere



- Exact half of a sphere is called a hemisphere.
- It has a circular base.
- No parallel and perpendicular faces or edges.

Triangular prism

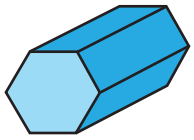
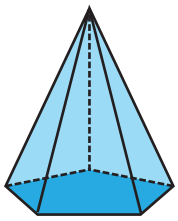
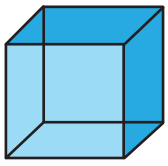
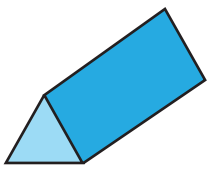
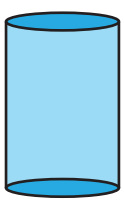


- A triangular prism has nine edges, five faces and six vertices.
- The bases of the triangular prism are triangle.
- It has two triangular shapes and three rectangular shapes.

Faces, Vertices & Edges

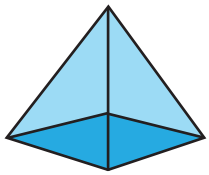
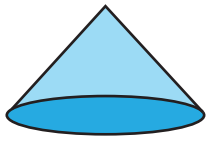
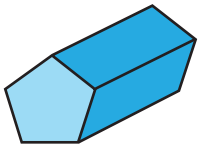
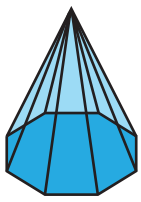
Date _____

Write all the possible answer.

Shapes	Names	Faces	Vertices	Edges
				
				
				
				
				

Date _____

Write all the possible answer.

Shapes	Names	Faces	Vertices	Edges
				
				
				
				
				

Composing 2-D shapes

Date _____

Choose from the below options, the new figures you get after decomposing each shape shown below.

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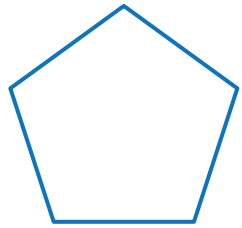

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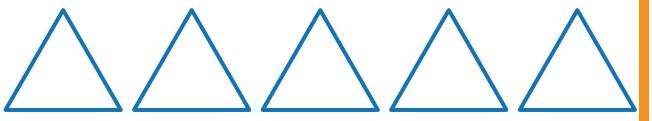
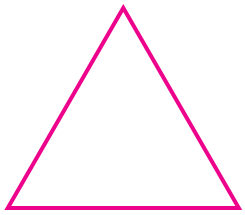


b)

c)

2)



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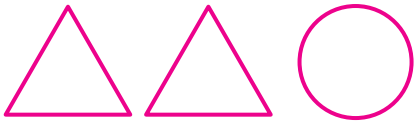

b)

c)

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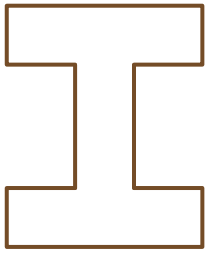
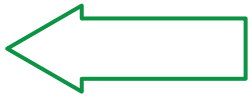


a)

b)

c)

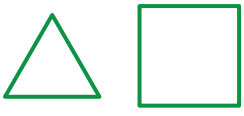
4)



a)

b)

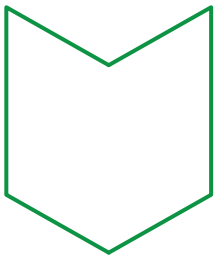
c)



Date _____

Choose from the below options, the new figures you get after decomposing each shape shown below.

1)



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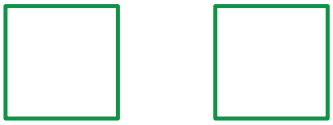

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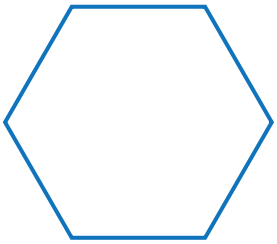

a)

b)

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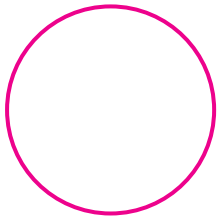

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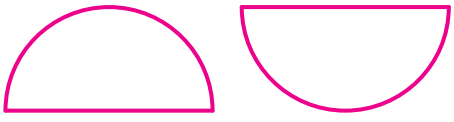

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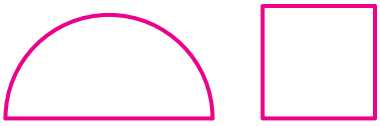

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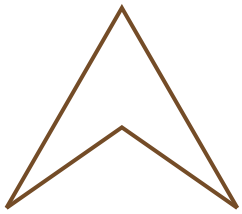

a)

b)

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Date _____

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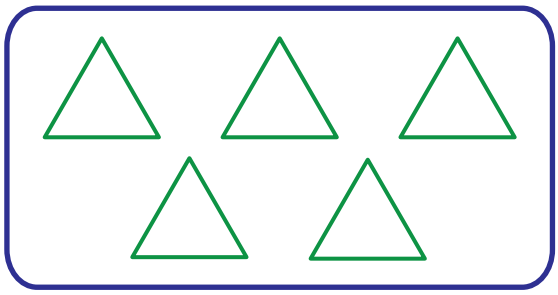
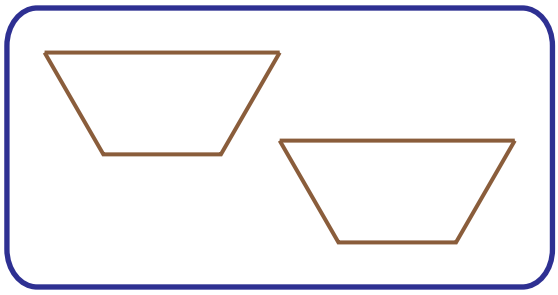
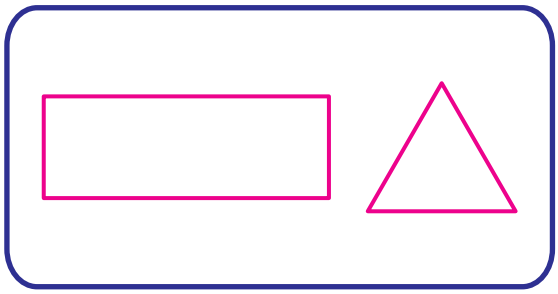
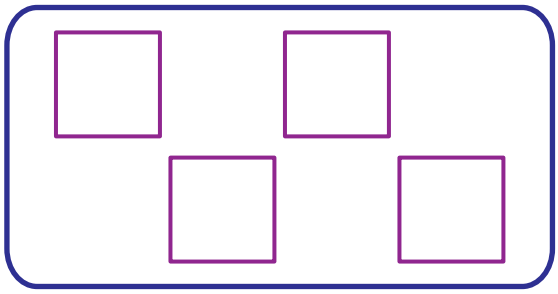
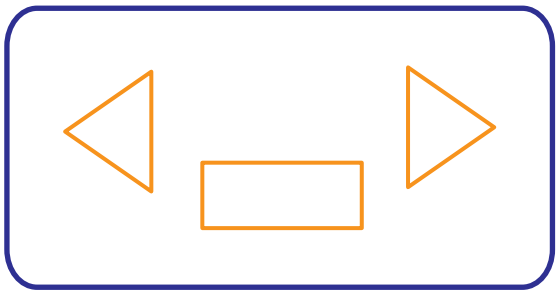
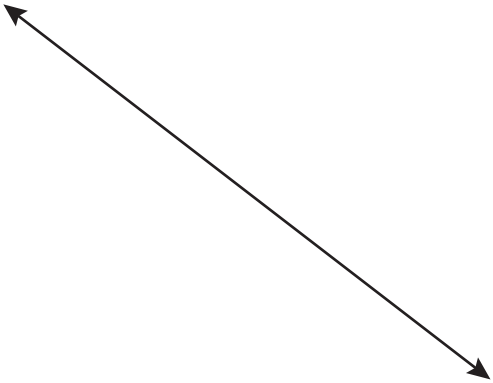
1) 

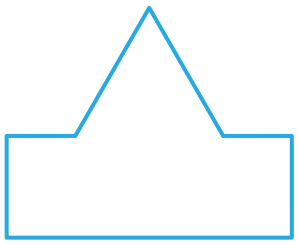
2) 

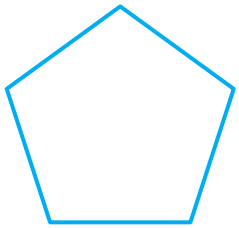
3) 

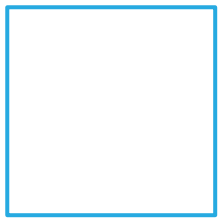
4) 

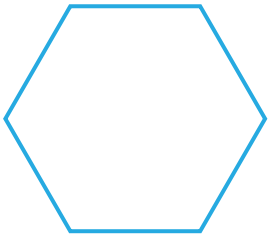
5) 





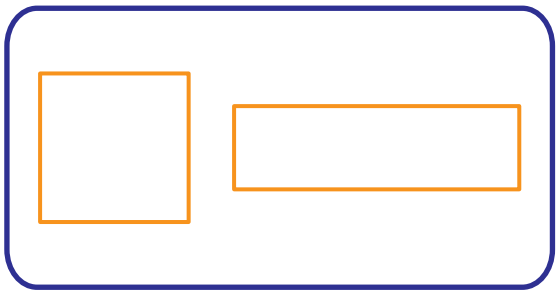


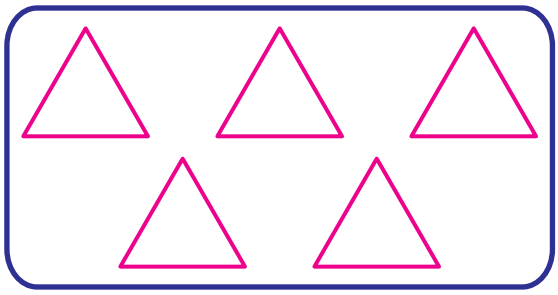


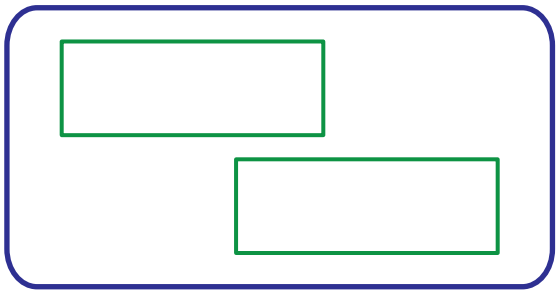


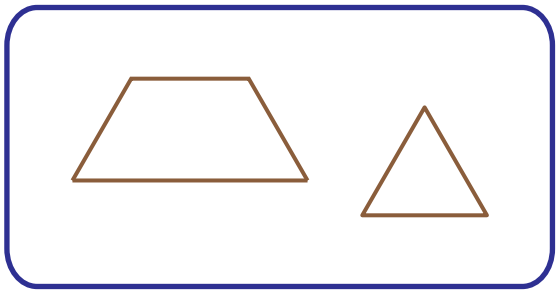
Date _____

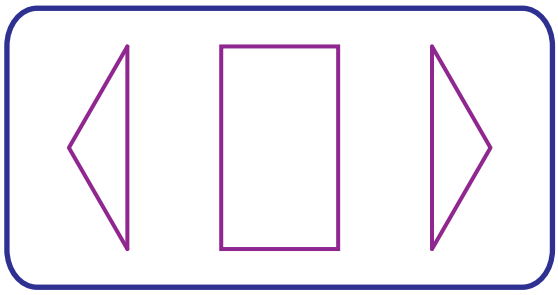
Match the following.

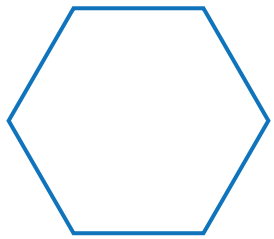
1) 

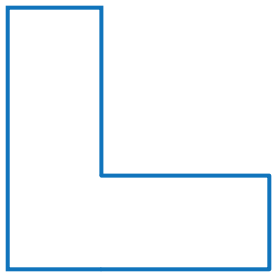
2) 

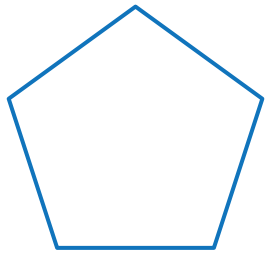
3) 

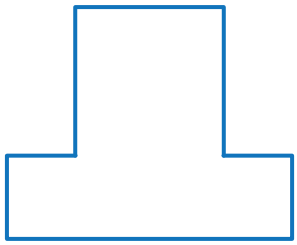
4) 

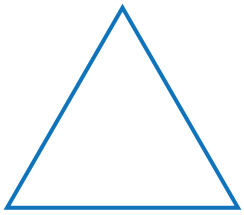
5) 







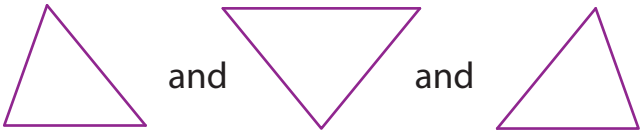




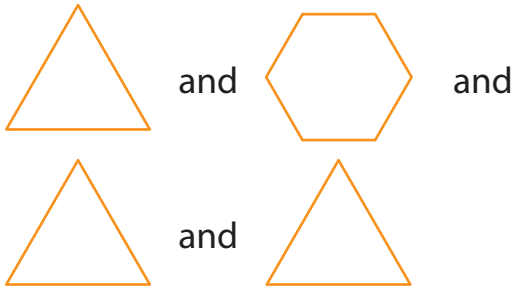
Composing 2-D shapes

Date _____

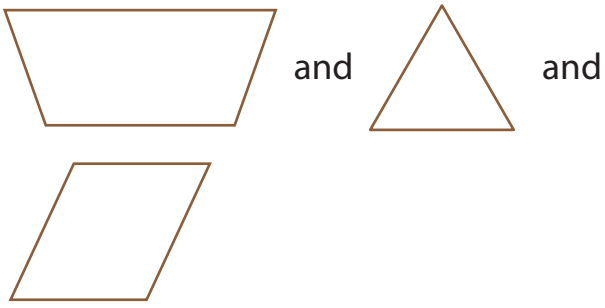
1) Join the given shapes to form a trapezoid.



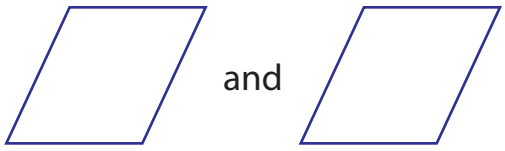
2) Join the given shapes to form a triangle.



3) Join the given shapes to form a hexagon.

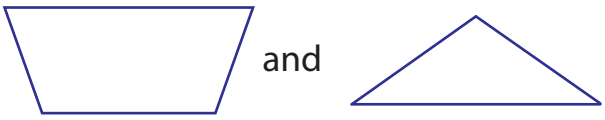


4) Join the given shapes to form a quadrilateral.



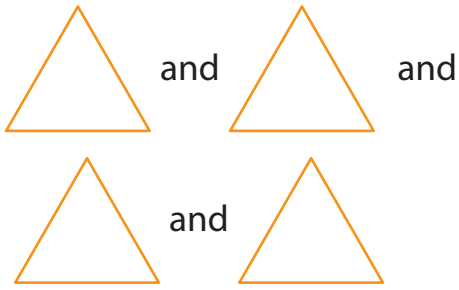
Date _____

1) Join the given shapes to form a pentagon.

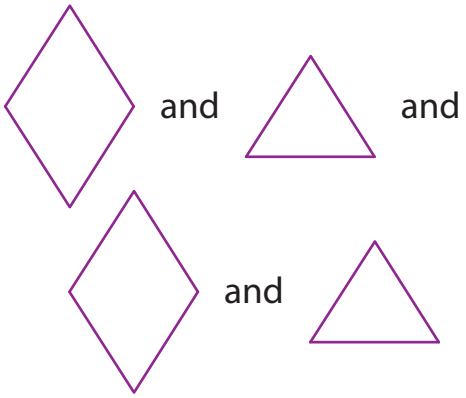


2) Join the given shapes to form a trapezoid.

3) Join the given shapes to form a triangle.



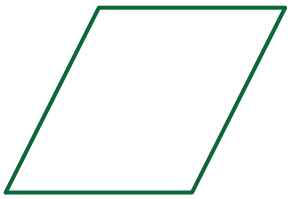
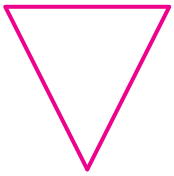
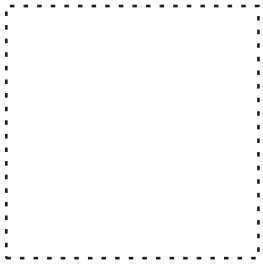
4) Join the given shapes to form a hexagon.

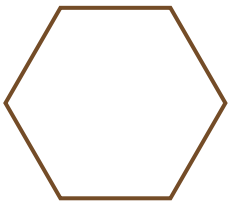
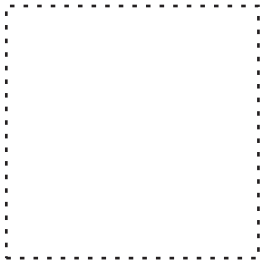


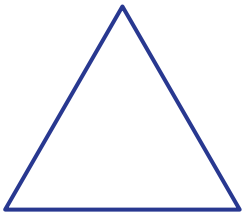
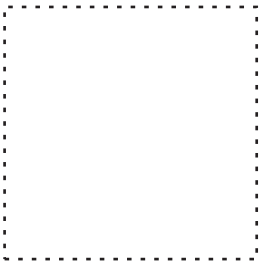
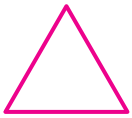
DECOMPOSING 2-D SHAPES

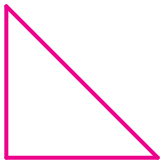
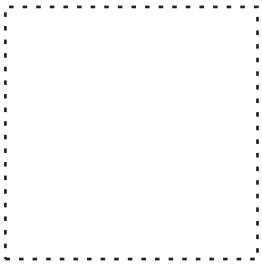
Date _____

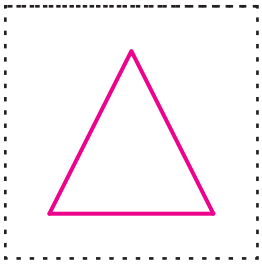
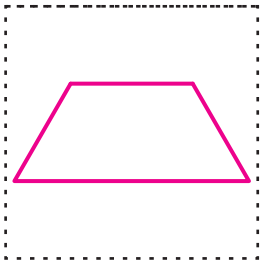
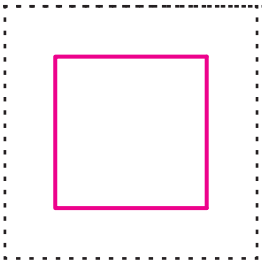
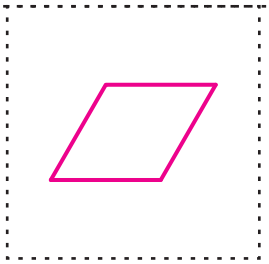
The original shapes are decomposed. Cut the decomposed shape and glue it in the appropriate box to form the original shape.

1)  =  + 

2)  =  +  + 

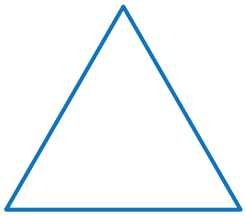
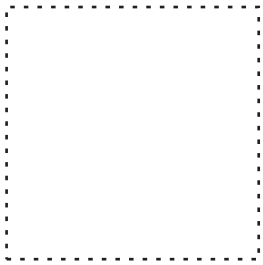
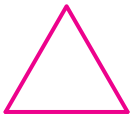
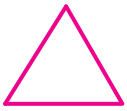
3)  =  + 

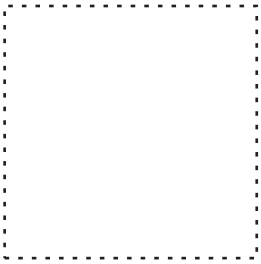
4)  =  +  + 

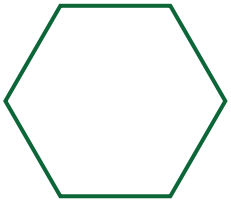
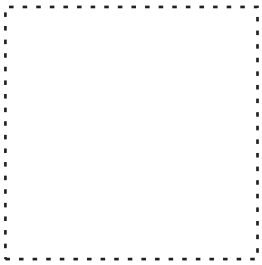
   

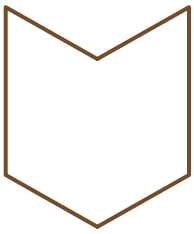
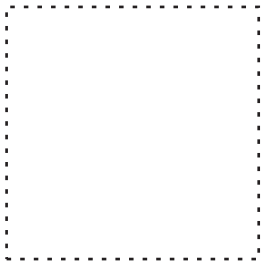
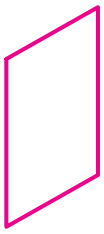
Date _____

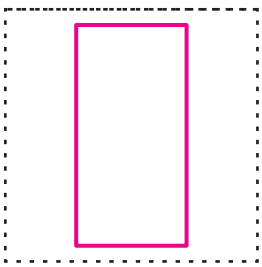
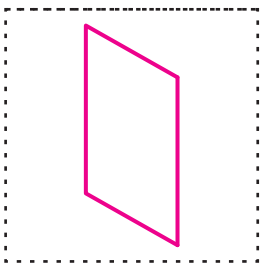
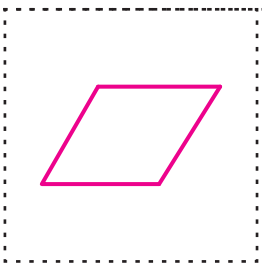
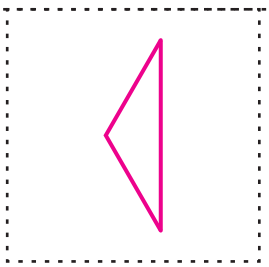
The original shapes are decomposed. Cut the decomposed shape and glue it in the appropriate box to form the original shape.

1)  =  +  + 

2)  =  + 

3)  =  +  + 

4)  =  + 

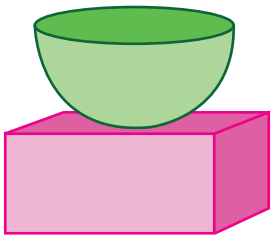
   

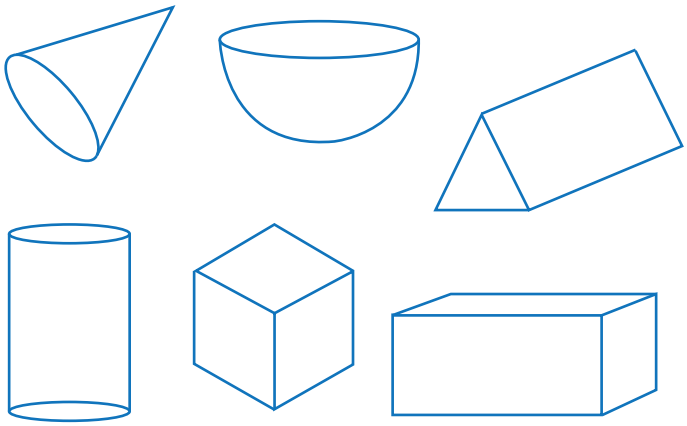
Composing 3-D shapes

Date _____

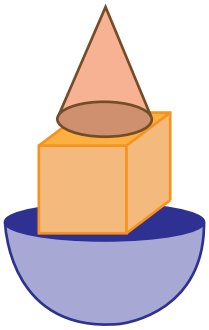
Color the 3-D shapes used in each question.

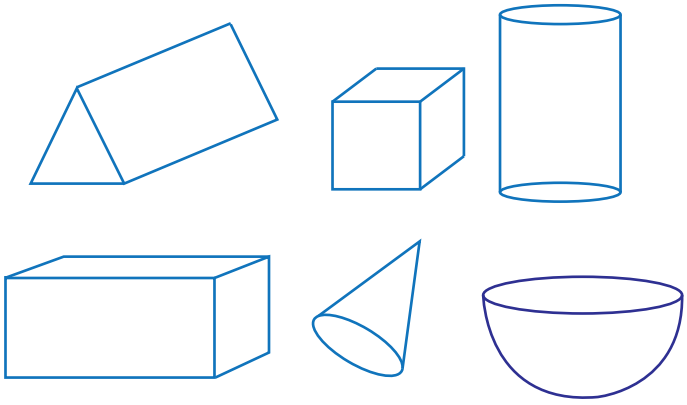
1)



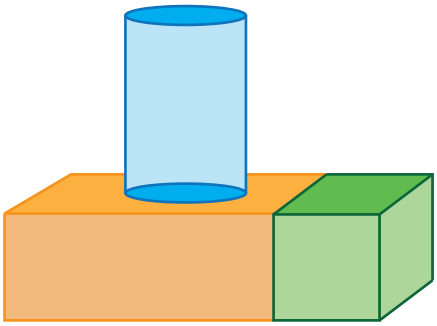


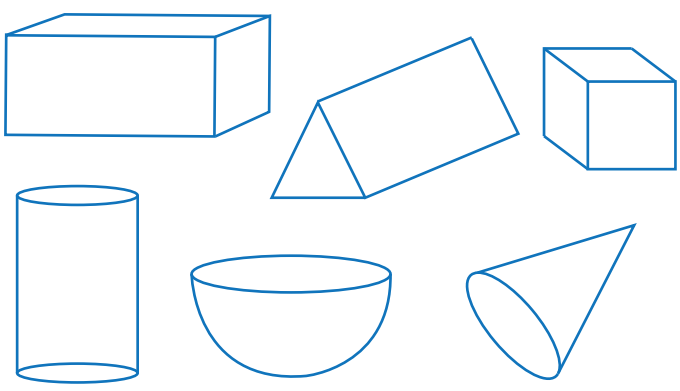
2)





3)





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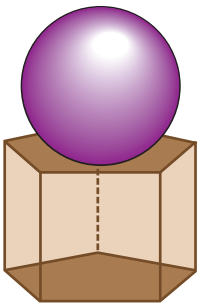
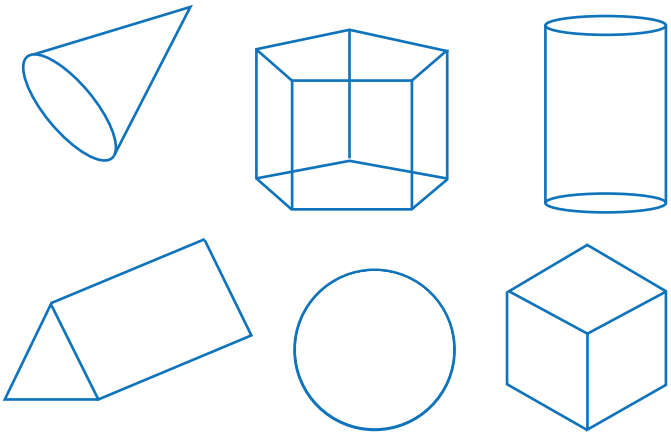
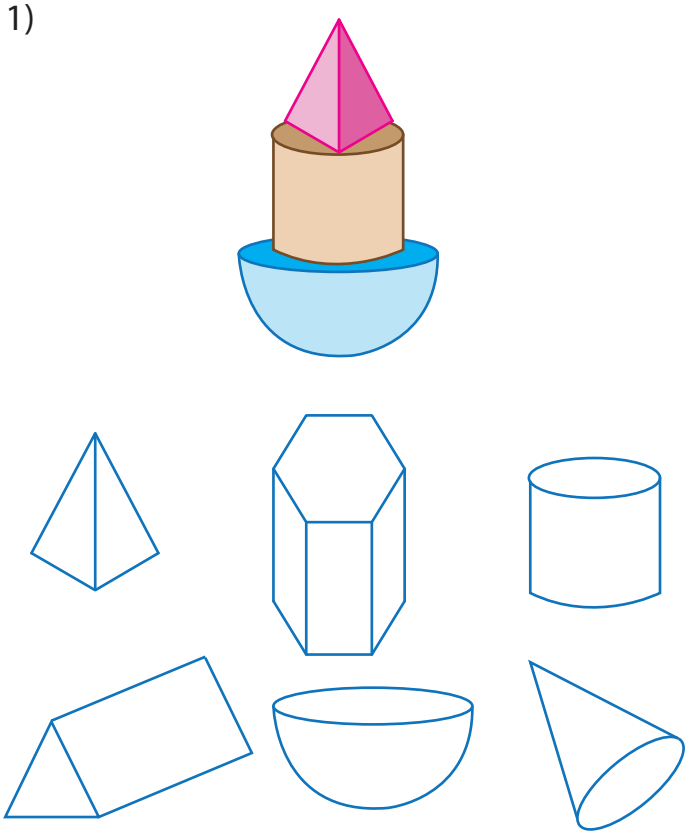




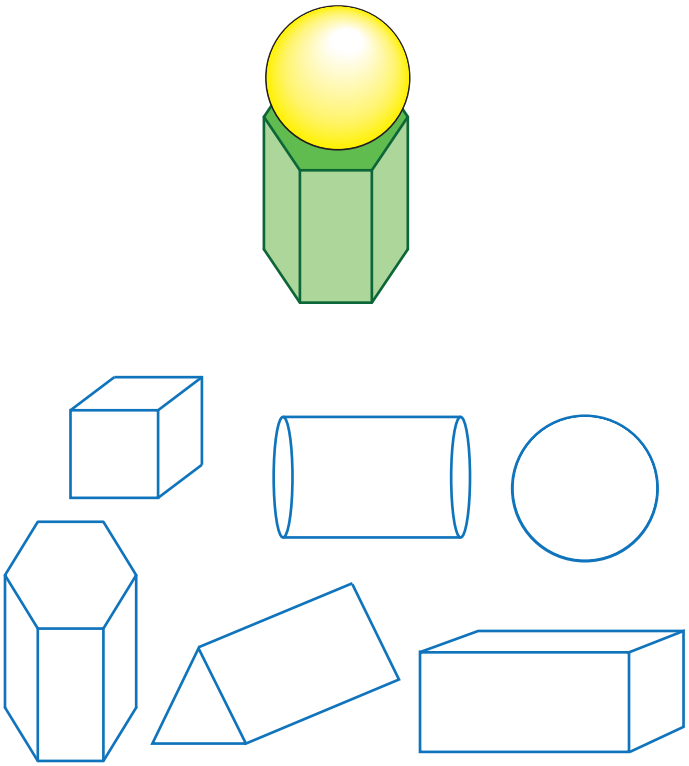
Date _____

Color the 3-D shapes used in each question.

1)



2)



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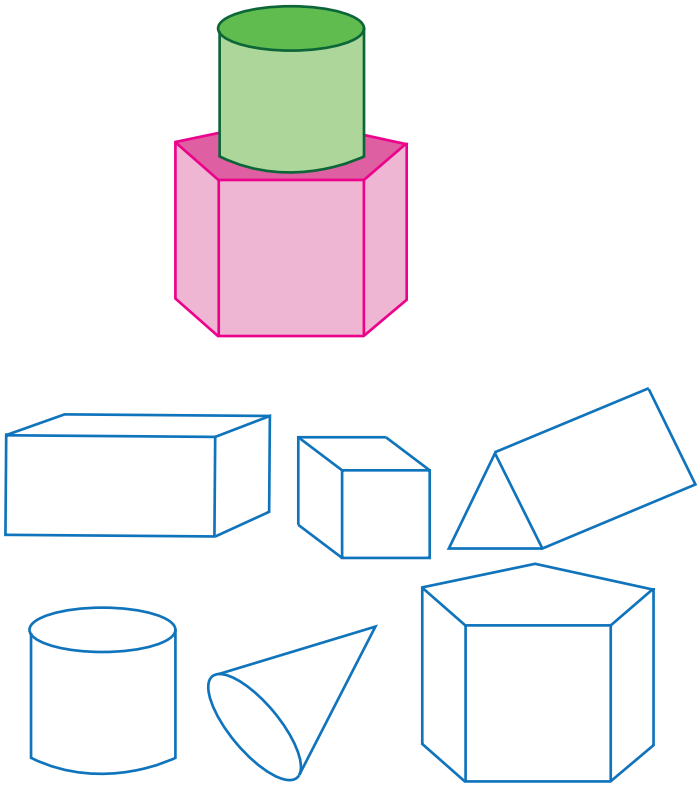

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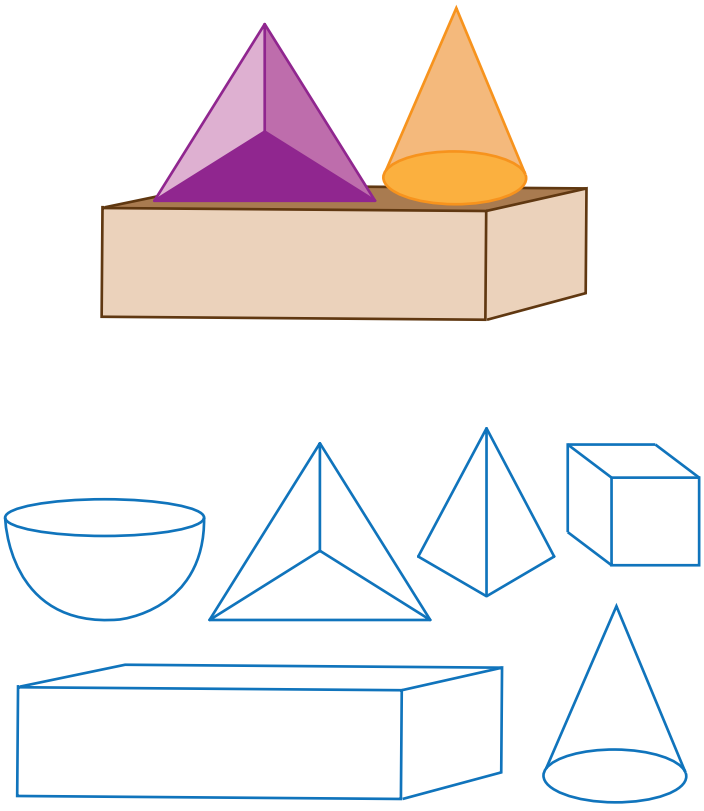
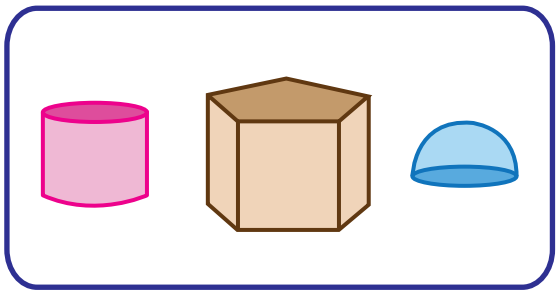
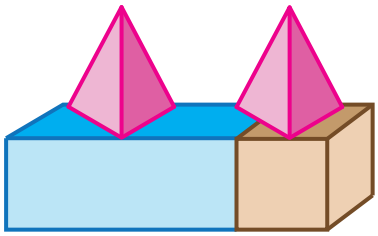


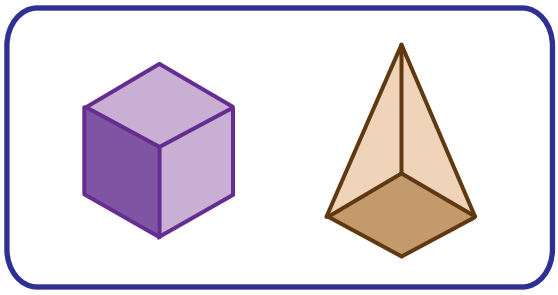
Composing 3-D shapes

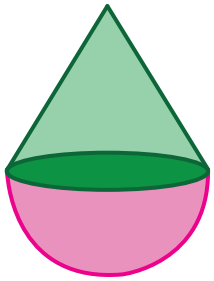
Date _____

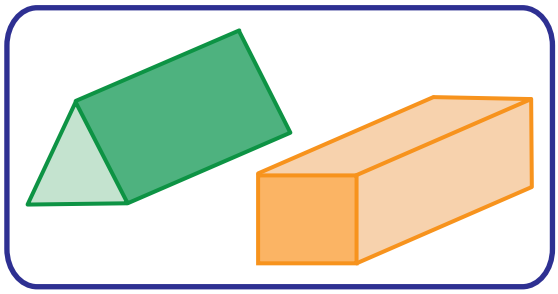
How have these shapes been used? Match the following.

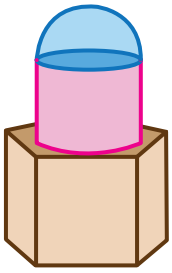
1) 

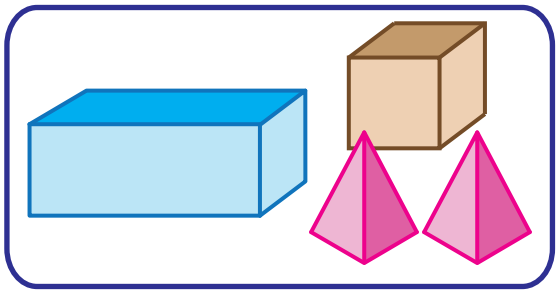


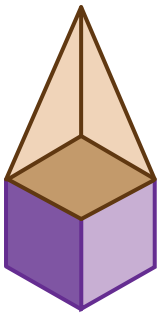
2) 

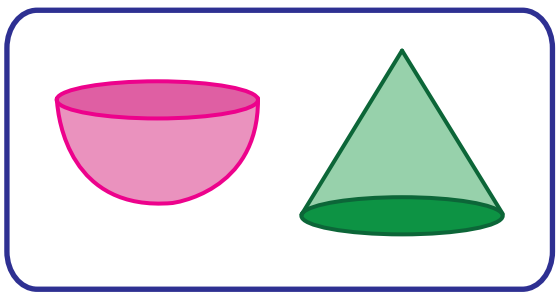


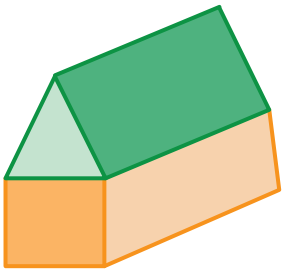
3) 



4) 

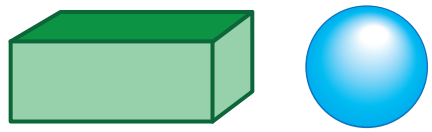


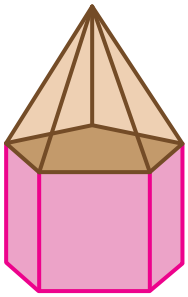
5) 

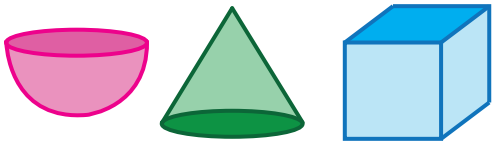


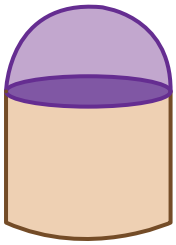
Date _____

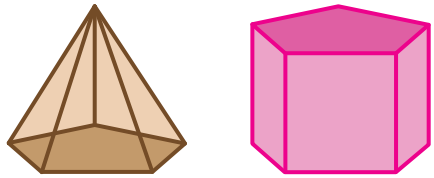
How have these shapes been used? Match the following.

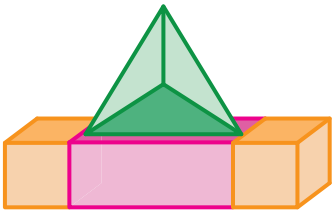
1) 

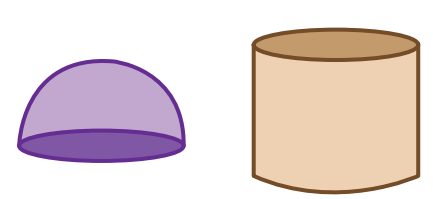


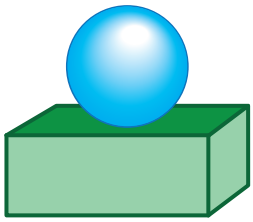
2) 

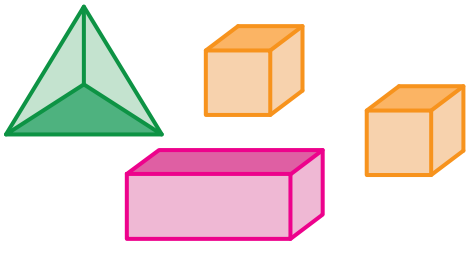


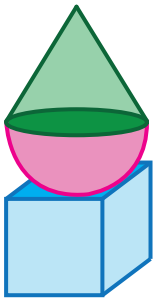
3) 



4) 



5) 

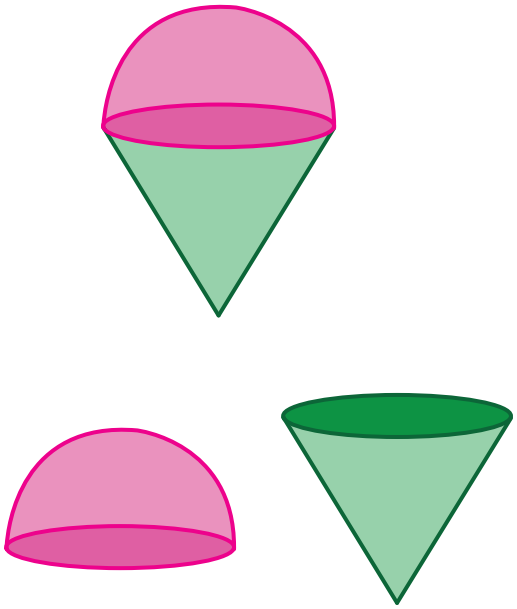


DECOMPOSING 3-D SHAPES

Date _____

Decompose the given 3-D objects into standard 3-D shapes. Draw and name them.

1)



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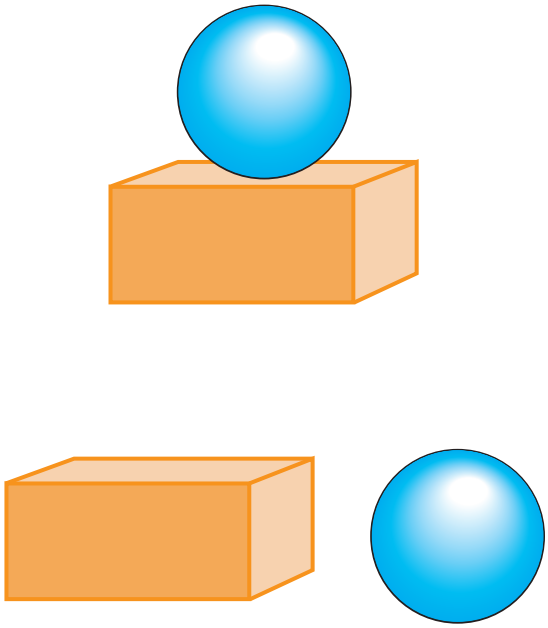

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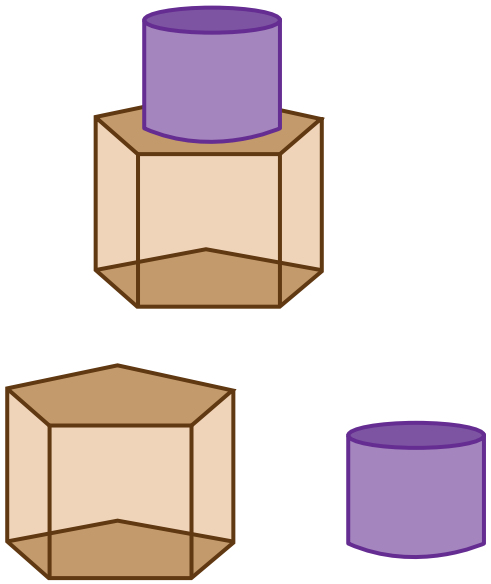
3)



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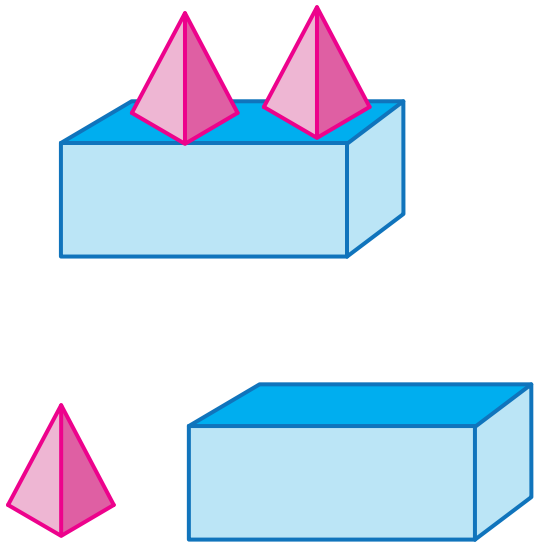
4)



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