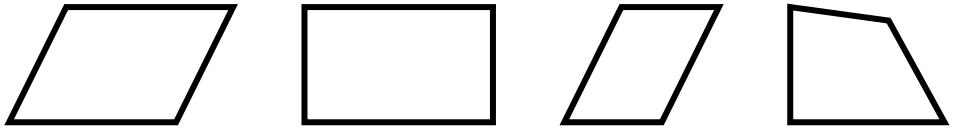
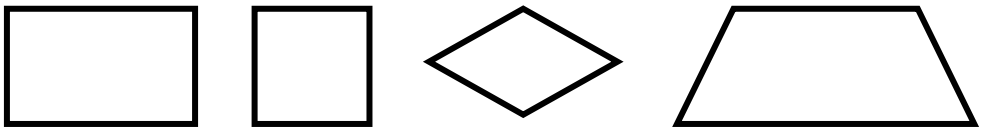
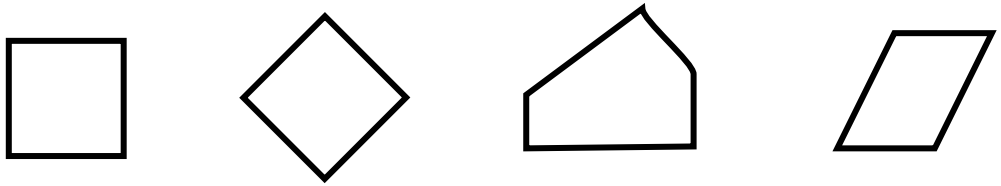
3.6.A - 3.6.B - Classifying 2 and 3D figures
Problem Set: 1

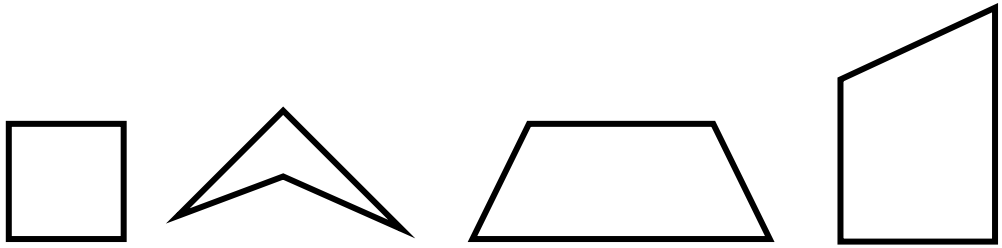
1. B	**2.** A	**3.** D	**4.** D	**5.** C	**6.** A
7. C	**8.** B	**9.** C	**10.** B	**11.** D	**12.** B
13. C	**14.** C	**15.** B	**16.** C	**17.** B	**18.** D
19. A	**20.** D	**21.** D	**22.** A	**23.** A	**24.** C
25. D	**26.** C	**27.** B	**28.** B	**29.** D	**30.** B

1. In which set do all the figures appear to be either a rhombus, a parallelogram, trapezoid, rectangle or square.

A. 

B. 

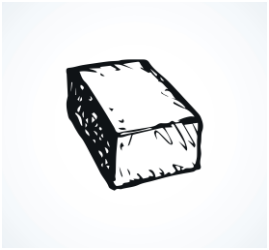
C. 

D. 

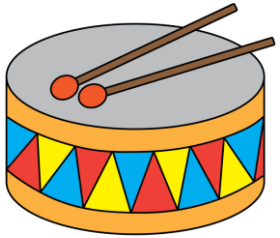
2. The objects can be classified into 2 groups based on their shape.

Can

Toolbox



Brick



Drum

Which table best represents the classifications of these objects?

A.

Group	Object
Prism	Brick Toolbox
Cylinder	Can Drum

B.

Group	Object
Cube	Brick Toolbox
Cylinder	Can Drum

C.

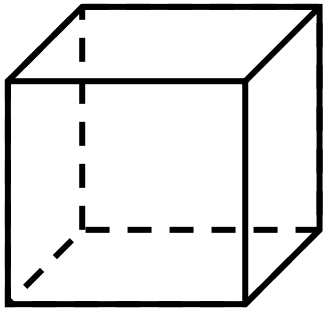
Group	Object
Prism	Brick Toolbox
Sphere	Can Drum

D.

Group	Object
Cylinder	Brick Toolbox
Prism	Can Drum

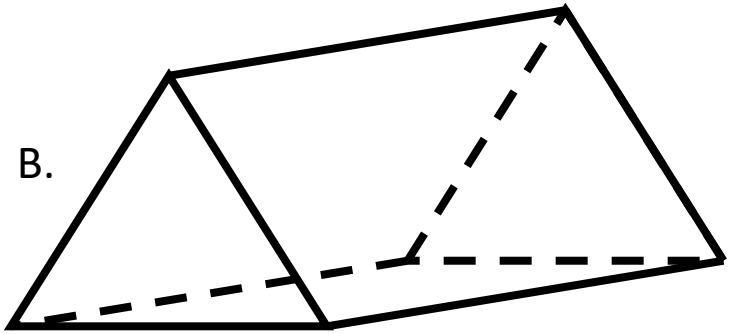
3. Which figure CANNOT be classified as a prism.

A.

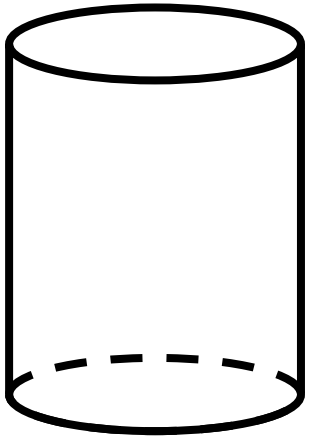


C.

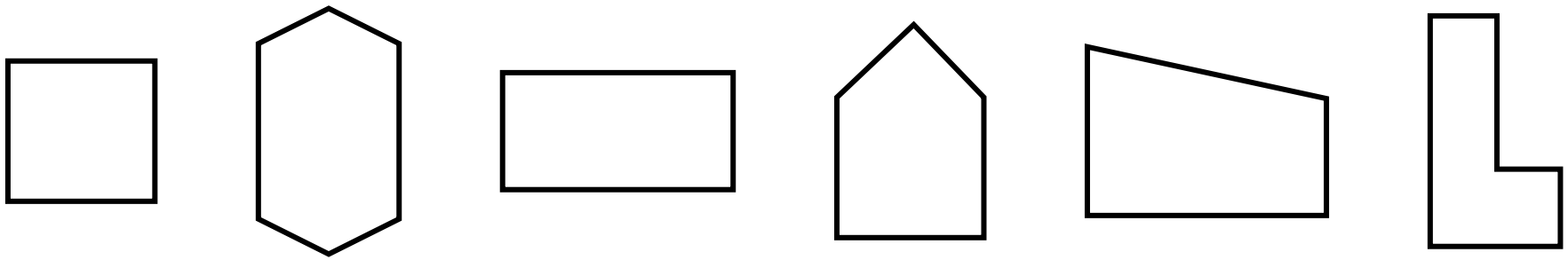
B.



D.



4. The figures shown can be sorted into groups.



Which of these shows a correct way to group these figures?

A. 3 rectangles and 3 hexagons

B. 2 hexagons and 4 quadrilaterals

C. 2 hexagons, 2 pentagons, and 2 rectangles

D. 1 pentagon, 2 hexagons, and 3 quadrilaterals

5. Dominique put figures into groups based on certain attributes. Sometimes she put figures into more than one group.

Dominique's Figures

Group	Attribute
1	Can have sides of different lengths
2	Has exactly 4 sides
3	Is a polygon

Which statement is true?

A. A square could be put into all the groups

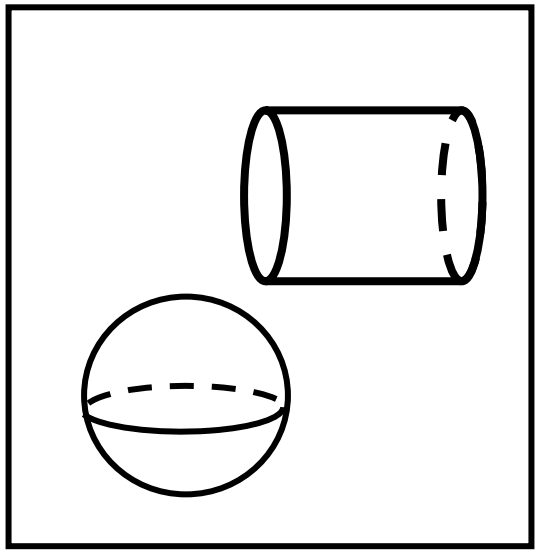
B. A triangle could be put into all the groups

C. A rectangle could be put into all groups

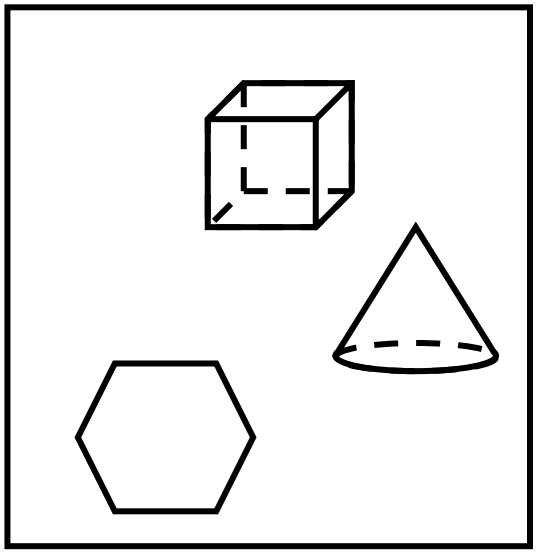
D. A pentagon could be put into all groups

6. Sofia separated some figures into two sets. The figures in set A have a common characteristic. The figures in Set B do not have the characteristic.

Set A



Set B



Which of these is the best description of the common characteristic of the figures in Set A?

A. They have no vertices.

B. They have at least one circular base.

C. They have at least one edge.

D. They have faces that are polygons.

3.6.A - 3.6.B - Classifying 2 and 3D figures
Problem Set: 2

1. B	**2.** A	**3.** D	**4.** D	**5.** C	**6.** A
7. C	**8.** B	**9.** C	**10.** B	**11.** D	**12.** B
13. C	**14.** C	**15.** B	**16.** C	**17.** B	**18.** D
19. A	**20.** D	**21.** D	**22.** A	**23.** A	**24.** C
25. D	**26.** C	**27.** B	**28.** B	**29.** D	**30.** B

7. JaMarion put figures into groups based on certain attributes. Sometimes he put figures into more than one group.

JaMarion's Figures

Group	Attribute
1	Must have all sides congruent
2	Has exactly 4 sides
3	Is a polygon

Which statement is true?

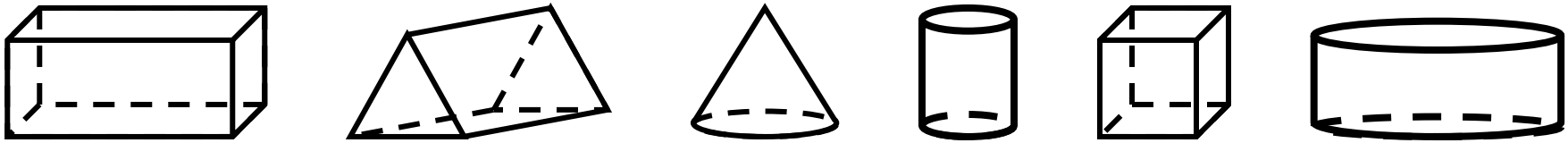
A. A square could be put into group 1 only

B. A triangle could be put into all the groups

C. A rectangle could be put into groups 2 and 3 only

D. A pentagon could be put into group 1 only

8. The figures shown can be sorted into groups.



Which list shows a correct way to group the figures?

A. 2 prisms, 1 cone, 2 cylinders, and 1 pyramid

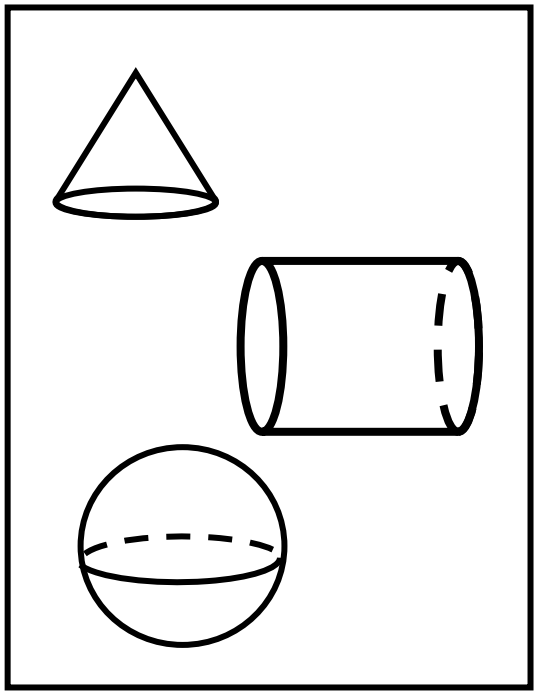
B. 3 prisms, 1 cone, and 2 cylinders

C. 2 prisms, 2 cylinders, 1 sphere, and 1 cube

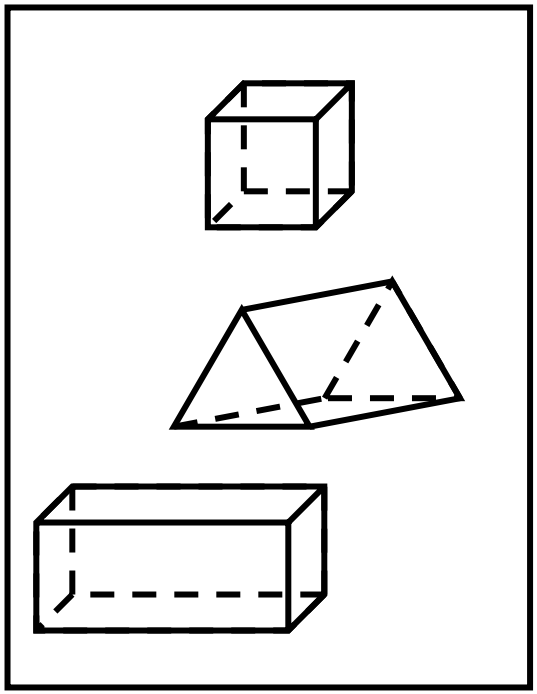
D. 3 prisms, 1 cylinder, and 2 cones

9. Zayne sorted some figures into two groups.

Group X



Group Y



Which statement about the figures Zayne sorted is true?

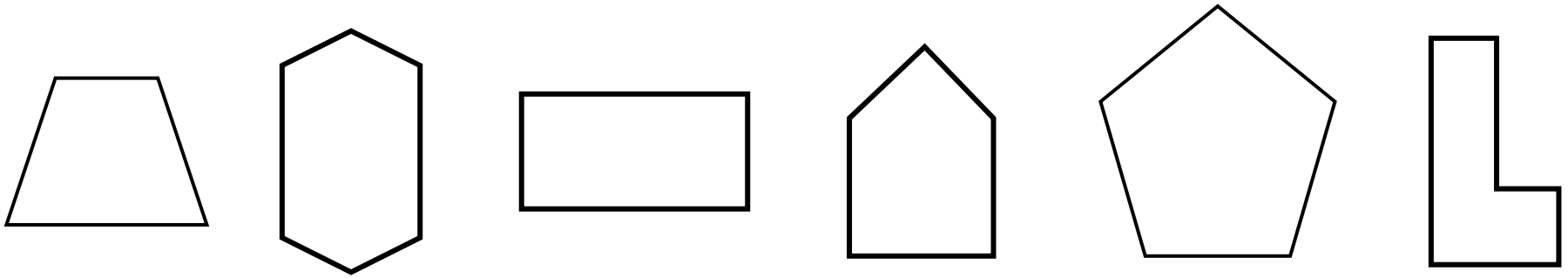
A. All the figures in Group X are cylinders.

B. All the figures in Group X are cones.

C. All the figures in Group Y are prisms.

D. All the figures in Group Y are rectangular prisms.

10. The figures shown can be sorted into groups.



Which of these shows a correct way to group these figures?

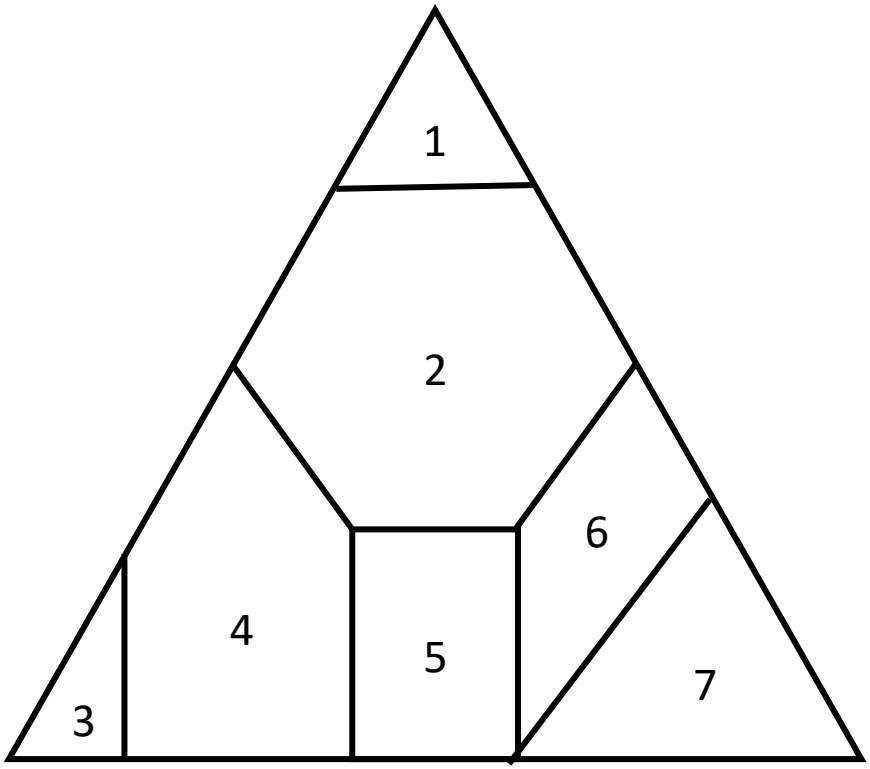
A. 3 rectangles and 3 hexagons

B. 2 pentagons, 2 hexagons, and 2 quadrilaterals

C. 2 hexagons and 4 quadrilaterals

D. 2 hexagons, 2 pentagons, and 2 rectangles

11. A figure is divided into 7 sections, as shown below.



Which two sections are quadrilaterals?

A. Sections 4 and 5

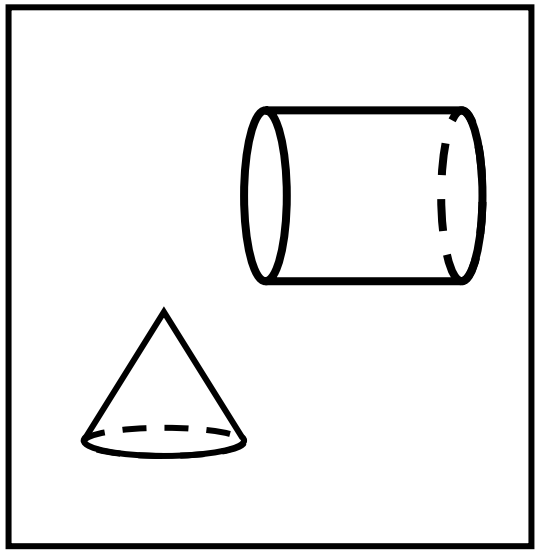
B. Sections 2 and 4

C. Sections 1 and 3

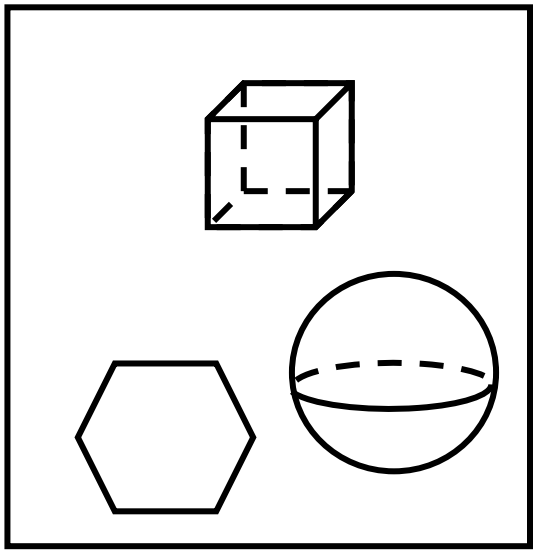
D. Sections 5 and 6

12. Sofia separated some figures into two sets. The figures in set A have a common characteristic. The figures in Set B do not have the characteristic.

Set A



Set B



Which of these is the best description of the common characteristic of the figures in Set A?

A. They have no vertices.

B. They have at least one circular base.

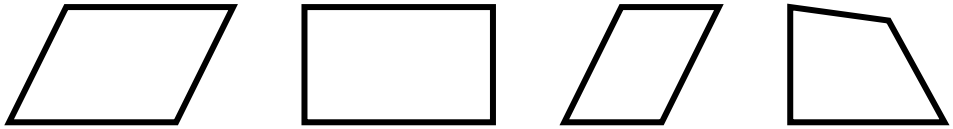
C. They have at least one edge.

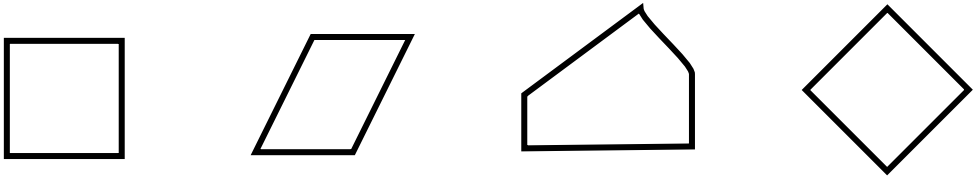
D. They have faces that are polygons.

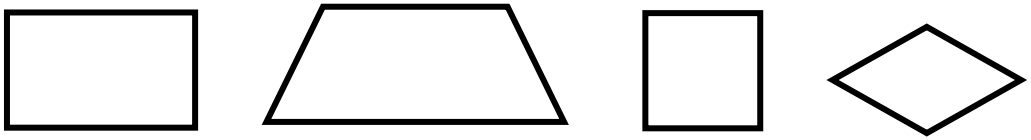
3.6.A - 3.6.B - Classifying 2 and 3D figures
Problem Set: 3

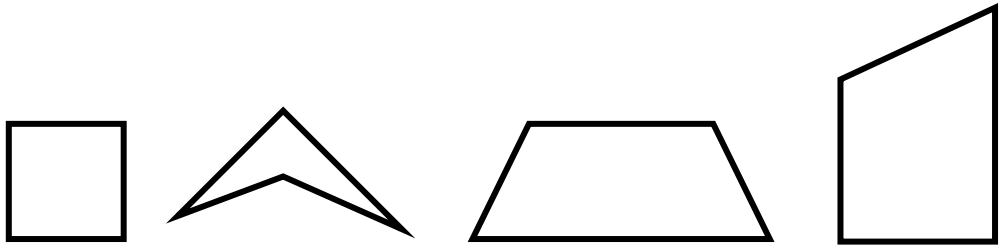
1. B	**2.** A	**3.** D	**4.** D	**5.** C	**6.** A
7. C	**8.** B	**9.** C	**10.** B	**11.** D	**12.** B
13. C	**14.** C	**15.** B	**16.** C	**17.** B	**18.** D
19. A	**20.** D	**21.** D	**22.** A	**23.** A	**24.** C
25. D	**26.** C	**27.** B	**28.** B	**29.** D	**30.** B

13. In which set do all the figures appear to be either a rhombus, a parallelogram, trapezoid, rectangle or square.

A. 

B. 

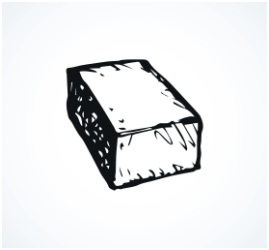
C. 

D. 

14. The objects can be classified into 2 groups based on their shape.

baseball

Toolbox



Brick

Orange

Which table best represents the classifications of these objects?

A.

Group	Object
Prism	Brick Toolbox
Cylinder	Baseball Orange

B.

Group	Object
Cube	Brick Toolbox
Sphere	Baseball Orange

C.

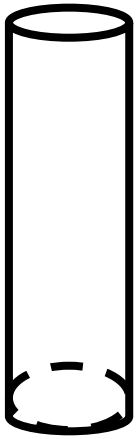
Group	Object
Prism	Brick Toolbox
Sphere	Baseball Orange

D.

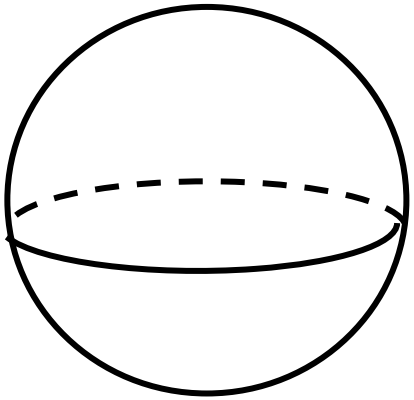
Group	Object
Sphere	Brick Toolbox
Prism	Baseball Orange

15. Which figure CANNOT be classified as a cylinder.

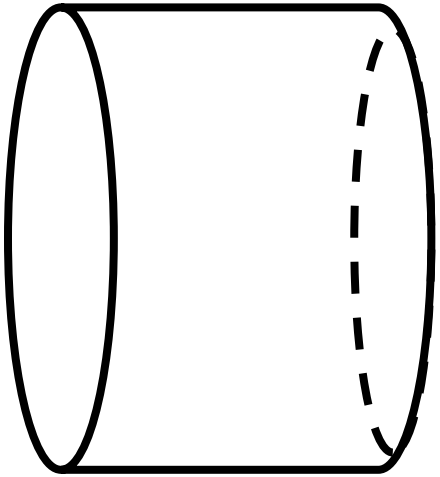
A.



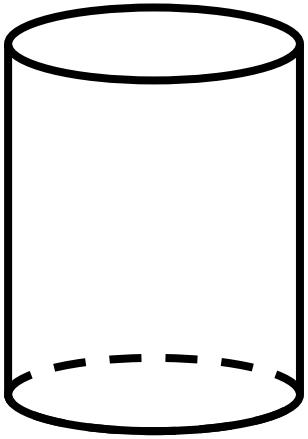
B.



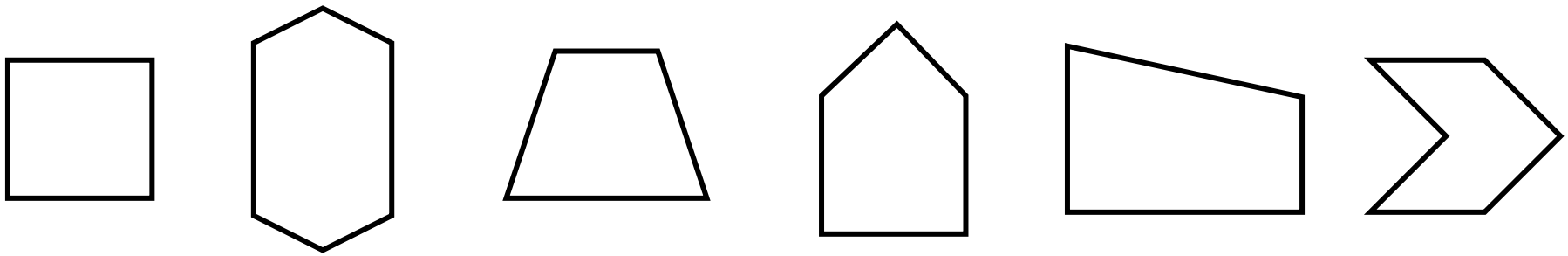
C.



D.



16. The figures shown can be sorted into groups.



Which of these shows a correct way to group these figures?

A. 3 rectangles and 3 hexagons

B. 2 hexagons and 4 quadrilaterals

C. 3 quadrilaterals, 2 hexagons, and 1 pentagon

D. 1 hexagon, 2 pentagons, and 3 quadrilaterals

17. Miracle put figures into groups based on certain attributes. Sometimes she put figures into more than one group.

Miracle's Figures

Group	Attribute
1	Has all sides congruent
2	Has exactly 4 sides
3	Is a polygon

Which statement is true?

A. A square can be put into group 2 only

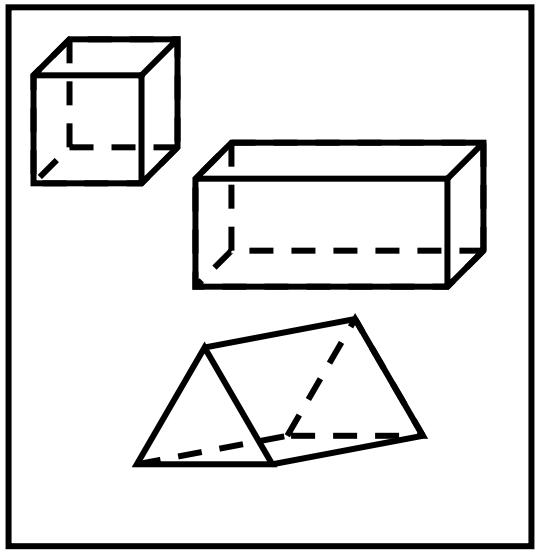
B. A triangle could be put into group 3 only

C. A rectangle could be put into groups 1 and 2 only

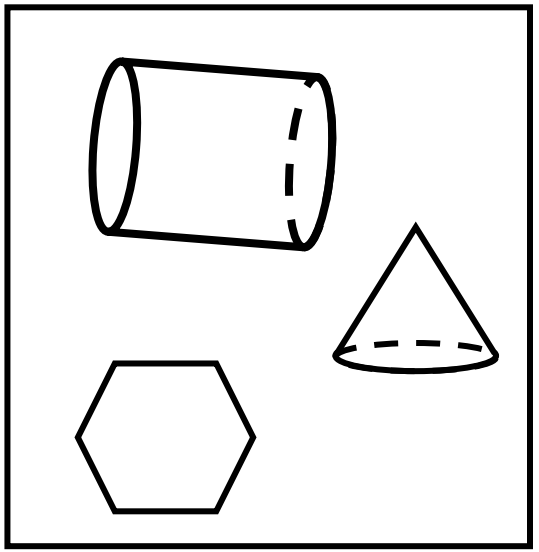
D. A pentagon could be put into group 1 only

18. Sofia separated some figures into two sets. The figures in set A have a common characteristic. The figures in Set B do not have the characteristic.

Set A



Set B



Which of these is the best description of the common characteristic of the figures in Set A?

A. They have no vertices.

B. They have at least one circular base.

C. They have edges that are congruent.

D. They have faces that are polygons.

3.6.A - 3.6.B - Classifying 2 and 3D figures
Problem Set: 4

1. B	**2.** A	**3.** D	**4.** D	**5.** C	**6.** A
7. C	**8.** B	**9.** C	**10.** B	**11.** D	**12.** B
13. C	**14.** C	**15.** B	**16.** C	**17.** B	**18.** D
19. A	**20.** D	**21.** D	**22.** A	**23.** A	**24.** C
25. D	**26.** C	**27.** B	**28.** B	**29.** D	**30.** B

19. De'Odrick put figures into groups based on certain attributes. Sometimes he put figures into more than one group.

De'Odrick's Figures

Group	Attribute
1	Has all sides congruent
2	Has exactly 4 sides
3	Is a polygon

Which statement is true?

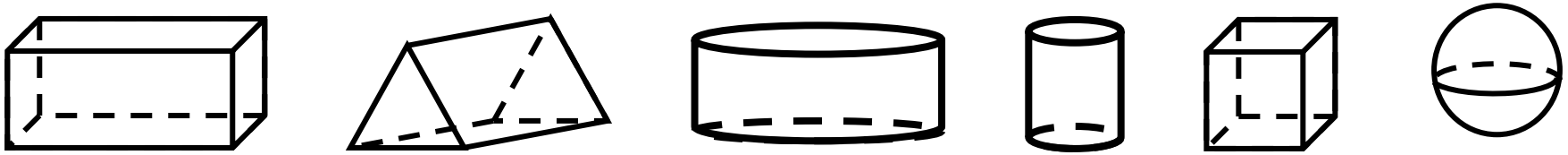
A. A rhombus could be put into all the groups

B. A triangle could be put into all the groups

C. A rectangle could be put into groups 1 and 2 only

D. A pentagon could be put into group 1 only

20. The figures shown can be sorted into groups.



Which list shows a correct way to group the figures?

A. 2 cubes, a prism, and 3 cylinders

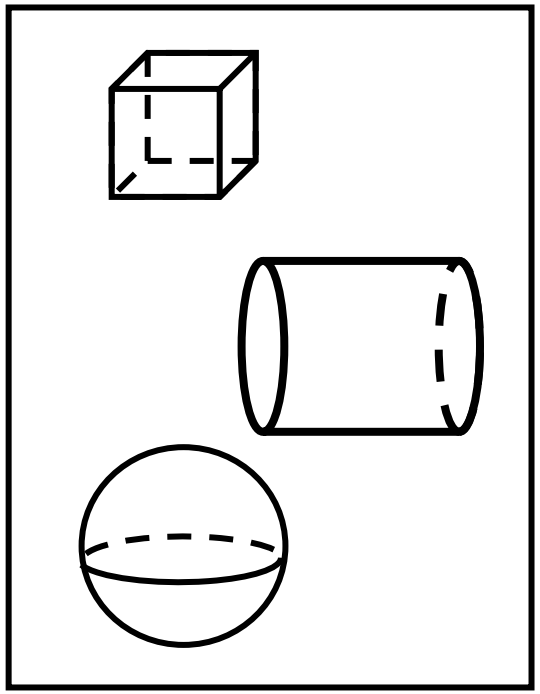
B. 5 prisms and 1 sphere

C. 2 prisms, 1 cylinder, 2 spheres, and 1 cube

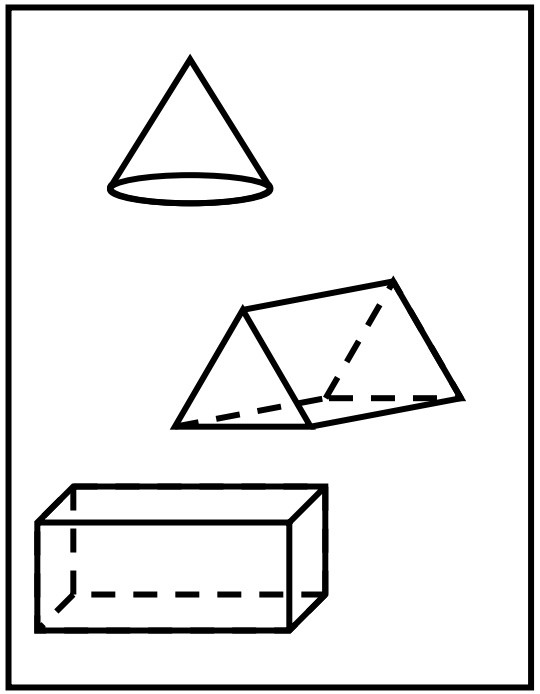
D. 3 prisms, 2 cylinders, and 1 sphere

21. Zayne sorted some figures into two groups.

Group X



Group Y



Which statement about the figures Zayne sorted is true?

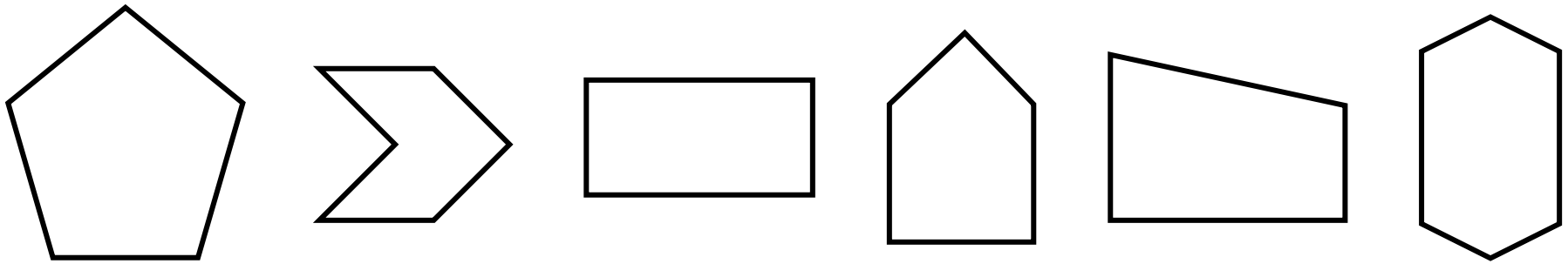
A. All the figures in Group X are cylinders.

B. All the figures in Group X are Prisms

C. All the figures in Group Y are prisms.

D. All the figures in Group Y have at least one vertex.

22. The figures shown can be sorted into groups.



Which of these shows a correct way to group these figures?

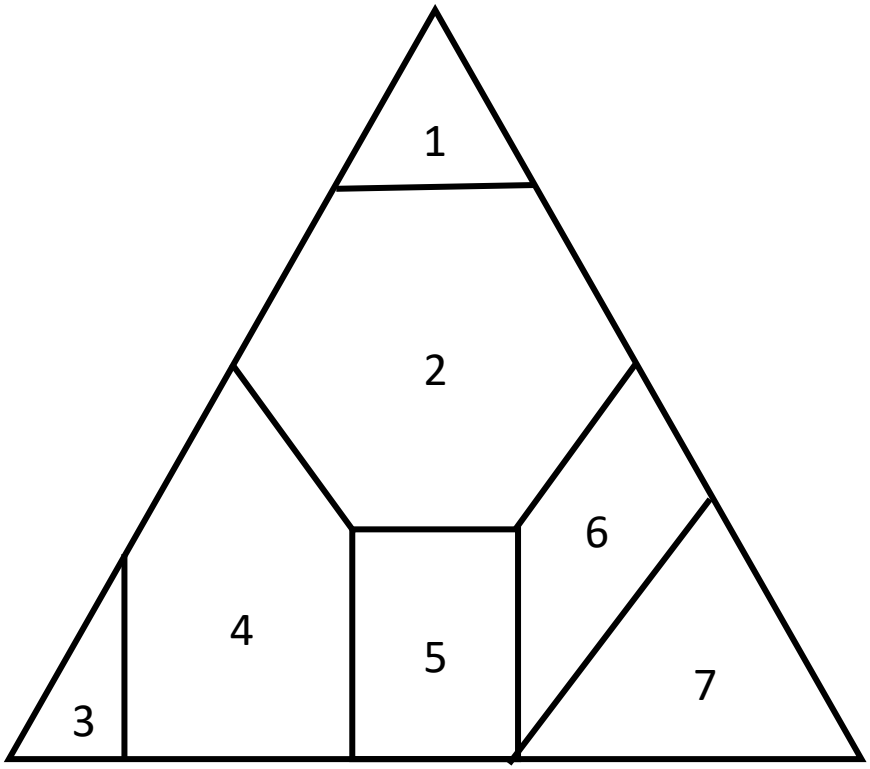
A. 2 hexagons, 2 pentagons, and 2 quadrilaterals

B. 3 rectangles and 3 hexagons

C. 2 hexagons and 4 quadrilaterals

D. 1 pentagon, 2 hexagons, and 3 quadrilaterals

23. A figure is divided into 7 sections, as shown below.



Which pair of sections contains a pentagon and a quadrilateral?

A. Sections 4 and 5

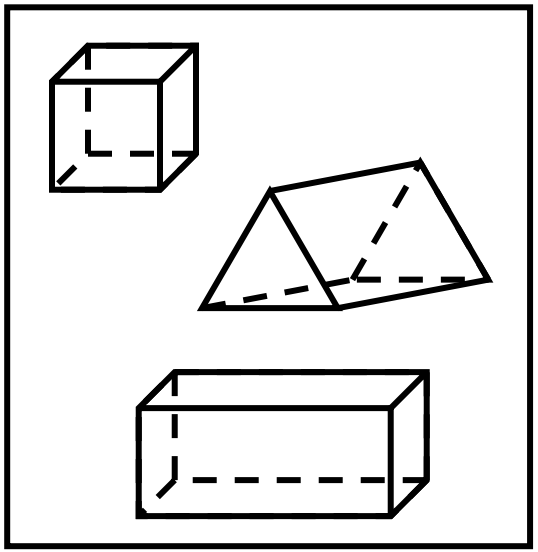
B. Sections 2 and 4

C. Sections 1 and 3

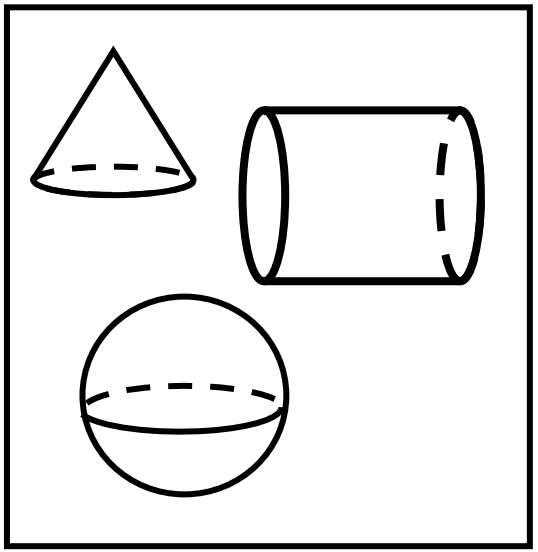
D. Sections 5 and 6

24. Sofia separated some figures into two sets. The figures in set A have a common characteristic. The figures in Set B do not have the characteristic.

Set A



Set B



Which of these is the best description of the common characteristic of the figures in Set A, but not set B?

A. They have only one vertex.

B. They have at least one circular base.

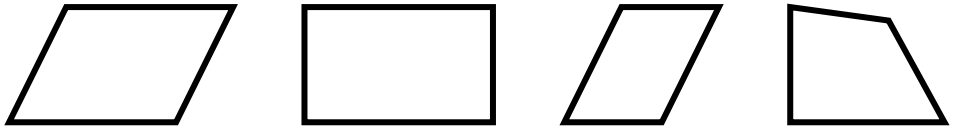
C. They have faces that are polygons.

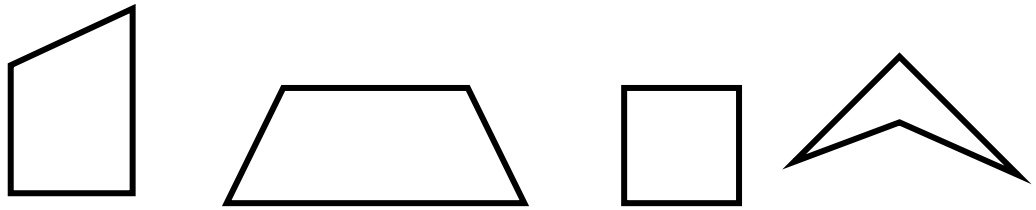
D. They are three dimensional.

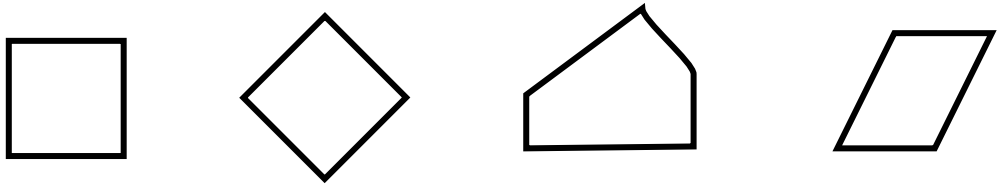
3.6.A - 3.6.B - Classifying 2 and 3D figures
Problem Set: 5

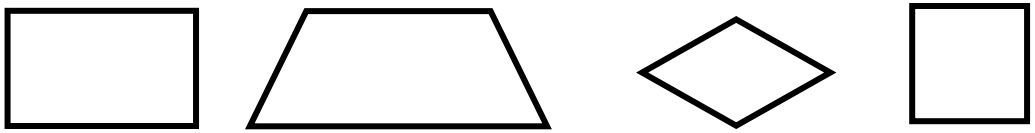
1. B	**2.** A	**3.** D	**4.** D	**5.** C	**6.** A
7. C	**8.** B	**9.** C	**10.** B	**11.** D	**12.** B
13. C	**14.** C	**15.** B	**16.** C	**17.** B	**18.** D
19. A	**20.** D	**21.** D	**22.** A	**23.** A	**24.** C
25. D	**26.** C	**27.** B	**28.** B	**29.** D	**30.** B

25. In which set do all the figures appear to be either a rhombus, a parallelogram, trapezoid, rectangle or square.

A. 

B. 

C. 

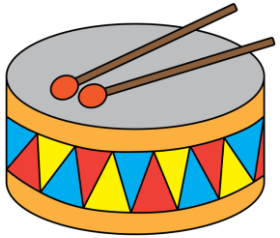
D. 

26. The objects can be classified into 2 groups based on their shape.

Can

Orange

Baseball



Drum

Which table best represents the classifications of these objects?

A.

Group	Object
Sphere	Orange Baseball
Prism	Can Drum

B.

Group	Object
Cube	Orange Baseball
Cylinder	Can Drum

C.

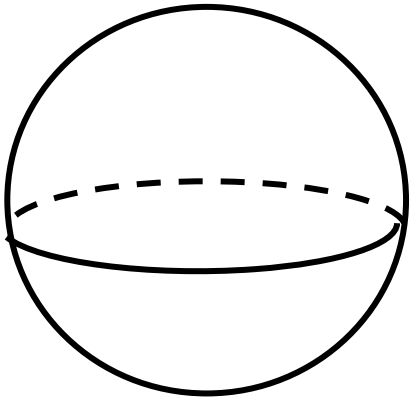
Group	Object
Sphere	Orange Baseball
Cylinder	Can Drum

D.

Group	Object
Cylinder	Orange Baseball
Sphere	Can Drum

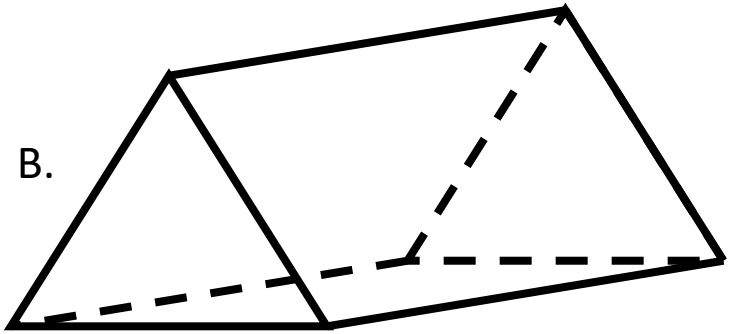
27. Circle ALL the shapes that can be classified as a prism.

A.

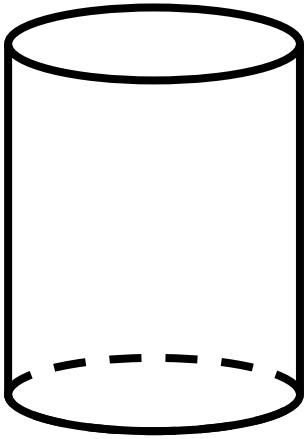


C.

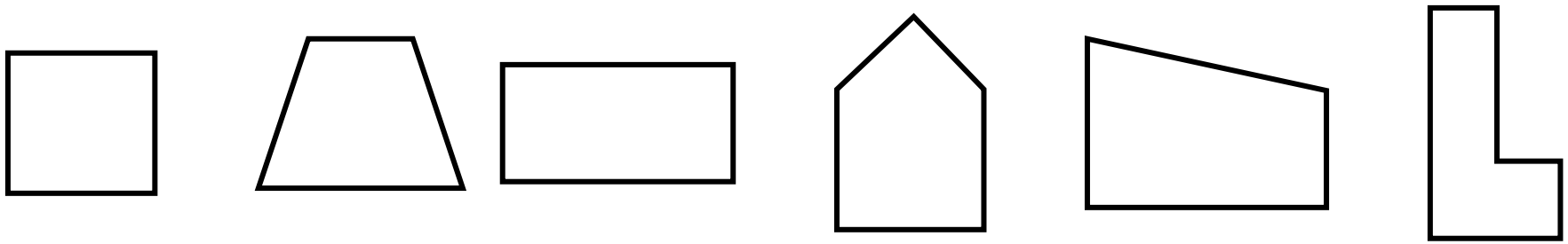
B.



D.



28. The figures shown can be sorted into groups.



Which of these shows a correct way to group these figures?

A. 3 rectangles and 3 hexagons

B. 4 quadrilaterals, 1 pentagon and 1 hexagon

C. 2 hexagons, 2 pentagons, and 2 rectangles

D. 1 pentagon, 2 hexagons, and 3 quadrilaterals

29. Josiah put figures into groups based on certain attributes. Sometimes he put figures into more than one group.

Josiah's Figures

Group	Attribute
1	Has all sides congruent
2	Has exactly 4 sides
3	Is a polygon

Which statement is true?

A. A square could be put into group 1 only.

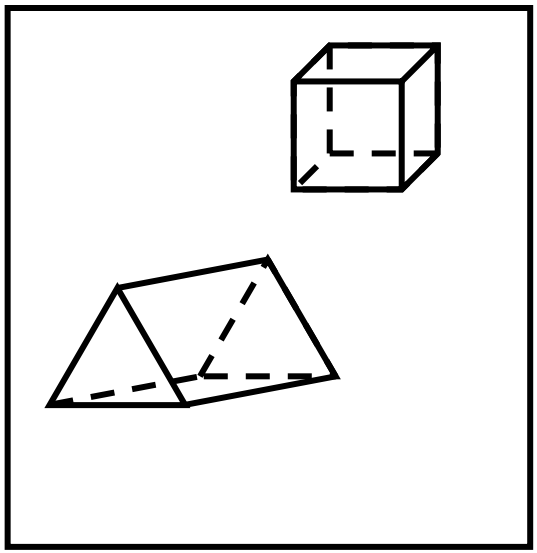
B. A triangle could be put into all the groups

C. A rectangle could be put into groups 1 and 2 only

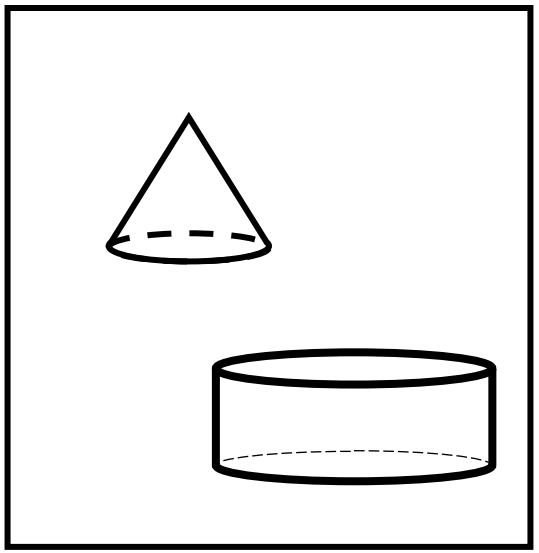
D. A pentagon could be put into group 3 only

30. Select all the answers that are true of Set A that are not true of Set B.

Set A



Set B



A. They have only one vertex.

B. They can be considered prisms.

C. They have circular bases.

D. They are three dimensional.

Some kind of clue game where the shape is the murderer and you identify it by eliminating certain characteristics. Murder in Shapetown.

Maybe some kind of game where they identify vocabulary like vertices.

Need to get a complete list of the vocab they need to know.

Maybe some kind of shape poker – where you make hands based on common characteristics like type of angles – number of sides, etc.

Trading Cards – maybe some kind of game where you call out a characteristic and they have to play all the cards that have that characteristic – e.g parallel lines

Elements	**2D Figures**	**3D figures**
Points	Triangle	Prism
Lines	Quadrilateral	Rectangular Prism
line segments	Pentagon	Cylinder
Rays	Hexagon	Sphere
Angles	Polygon	Cube
Perpendicular	Rhombus	Cone
parallel lines	Parallelogram	Pyramid
Intersecting	Trapezoid	
Vertices	Rectangle	
Sides	Square	
Edge		
Base		
Congruent		

A cylinder consists of 2 flat ends and a curved surface while a prism contains two polygons for the two ends and the remaining are plain rectangular faces. A cylinder does not have any diagonals while a prism contains many.

ConeA cone is a solid three-dimensional figure with a circular base and one vertex. PyramidA pyramid is a three-dimensional object with a base that is a polygon and triangular faces that meet at one vertex.

Base - The base is counted as a face. The base of a prism, cylinder, pyramid, and so on, is the flat surface shape that defines the outline of the object. In the case of a prism, the faces are always parallelograms; in the case of a pyramid, the faces are always triangles. For either of those solids, the shape of the base can be any convex polygon. For rectangular prisms, and for triangular pyramids, any face could be a base.
Face - Vertices, Edges and **Faces**. Vertex, Edge and **Face** A vertex is a corner. An edge is a line segment between **faces**. A **face** is a single flat surface.
Edge - In geometry, an edge is **a particular type of line segment joining two vertices in a polygon, polyhedron, or higher-dimensional polytope**. In a polygon, an edge is a line segment on the boundary, and is often called a polygon side.
Vertex – corner or point where lines meet

orange	Light blue	Light blue	Dark blue	Dark blue	Purple