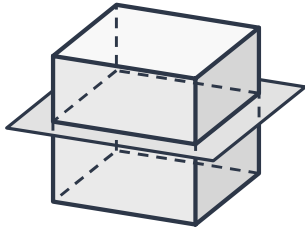


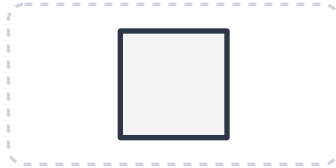
Cross-Sections of Solids

Each prism is cut parallel to its base. Draw and name the cross-section.

1. **Example**

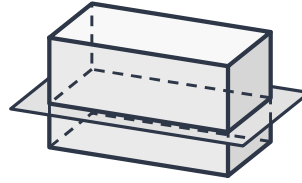


Draw it:



Name: square

2.

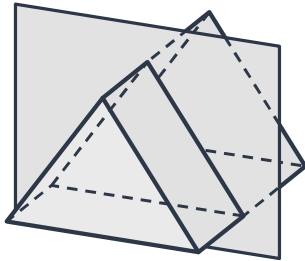


Draw it:



Name: _____

3.

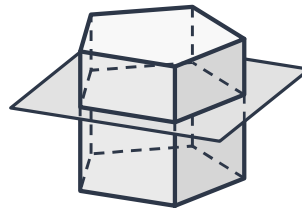


Draw it:



Name: _____

4.

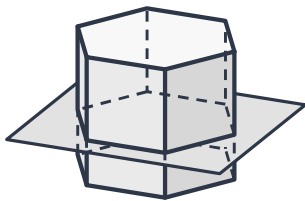


Draw it:

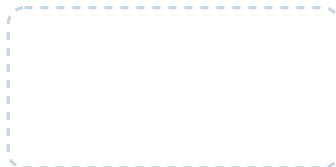


Name: _____

5.

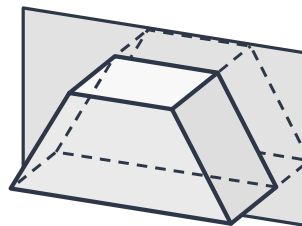


Draw it:

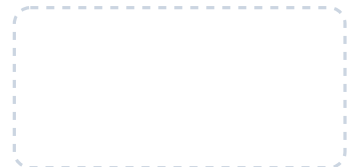


Name: _____

6.



Draw it:



Name: _____

7. A triangular prism is 15 cm long. Its two triangular faces have sides of 6 cm, 8 cm and 10 cm. It is cut parallel to a triangular face, 5 cm from one end. How long are the sides of the cross-section?

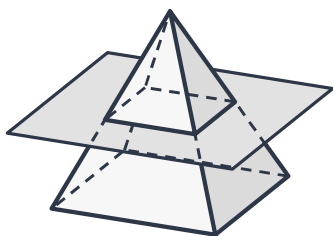
The sides are _____ cm, _____ cm and _____ cm.

In a right prism, every slice parallel to the base matches the base exactly.

Cross-Sections of Solids

Each solid is cut parallel to its base. Name and compare the slices.

1. **Example**



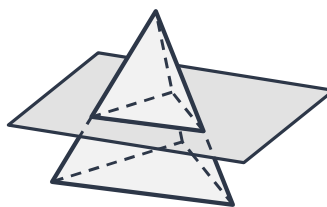
Shape:

square

Compared with
the base it is:

bigger
the same
smaller

2.

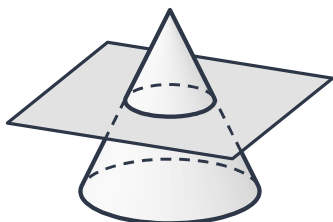


Shape:

Compared with
the base it is:

bigger
the same
smaller

3.

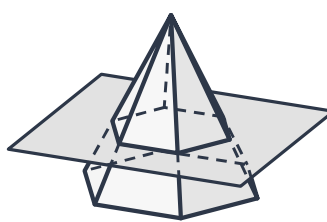


Shape:

Compared with
the base it is:

bigger
the same
smaller

4.



Shape:

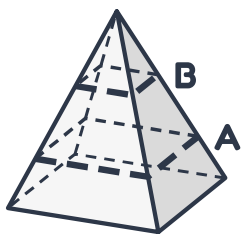
Compared with
the base it is:

bigger
the same
smaller

Which slice is bigger? Circle A, B or same.

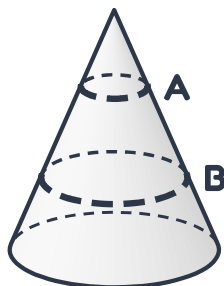
5.

Example



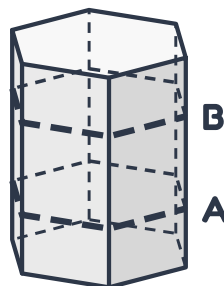
A B same

6.



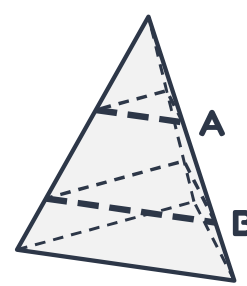
A B same

7.



A B same

8.



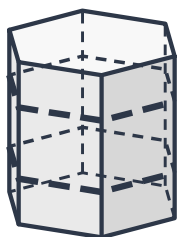
A B same

Cross-Sections of Solids

Slice each solid parallel to its base. Is it a prism? Tick Yes or No.

The slice test: a right prism has flat faces, and every slice parallel to its base is the same shape and size.

1. **Example**



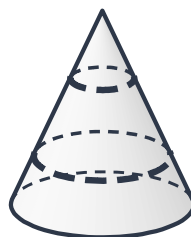
Slices: hexagon

Yes No

Same size? ☒ ☐

Prism? ☒ ☐

2.



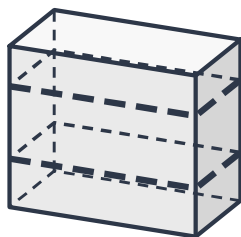
Slices: _____

Yes No

Same size? ☐ ☐

Prism? ☐ ☐

3.



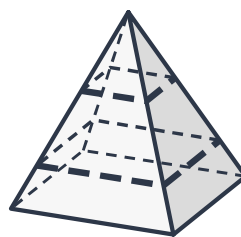
Slices: _____

Yes No

Same size? ☐ ☐

Prism? ☐ ☐

4.



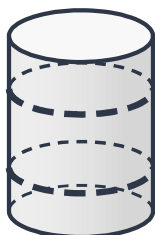
Slices: _____

Yes No

Same size? ☐ ☐

Prism? ☐ ☐

5.



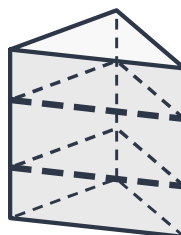
Slices: _____

Yes No

Same size? ☐ ☐

Prism? ☐ ☐

6.



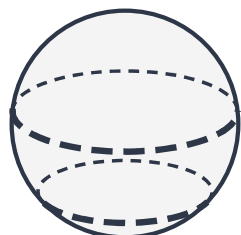
Slices: _____

Yes No

Same size? ☐ ☐

Prism? ☐ ☐

7.



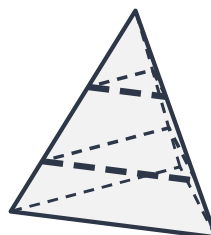
Slices: _____

Yes No

Same size? ☐ ☐

Prism? ☐ ☐

8.



Slices: _____

Yes No

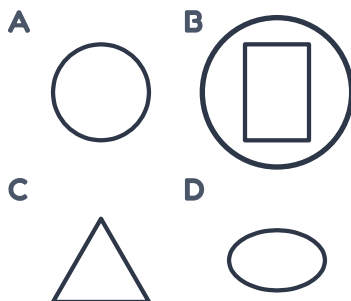
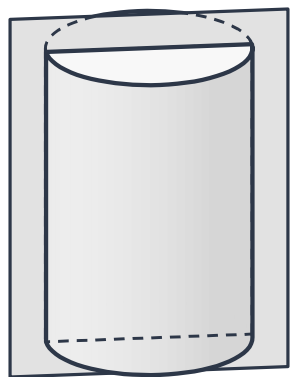
Same size? ☐ ☐

Prism? ☐ ☐

Cross-Sections of Solids

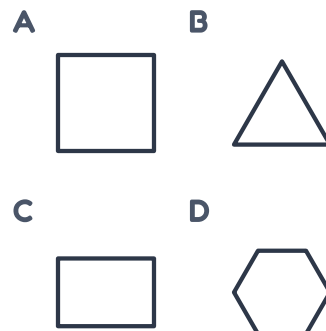
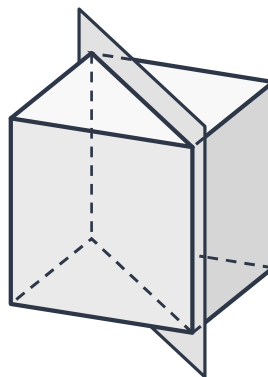
Each solid is cut a new way. Circle the shape of the cross-section.

1. Cut straight down the middle.

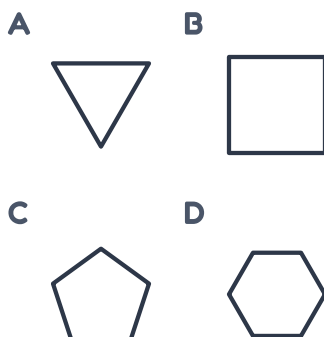
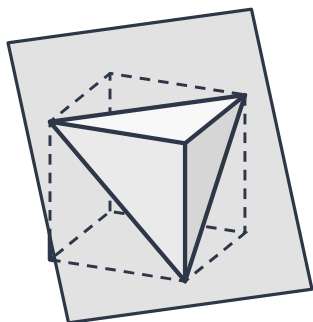


Example

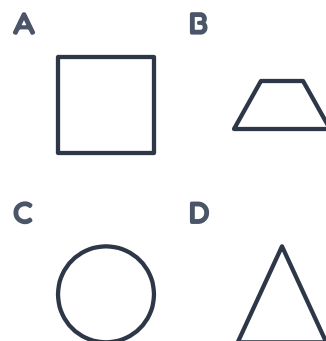
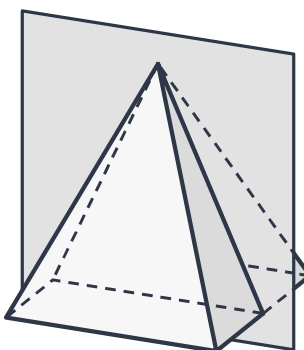
2. Cut from corner to corner.



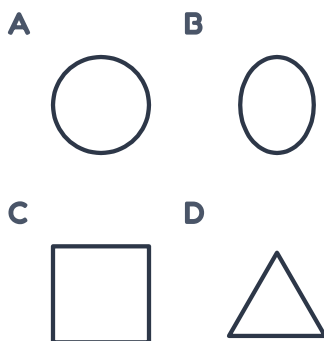
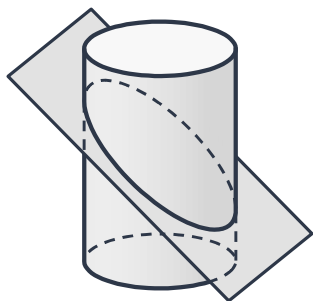
3. Cut through three corners.



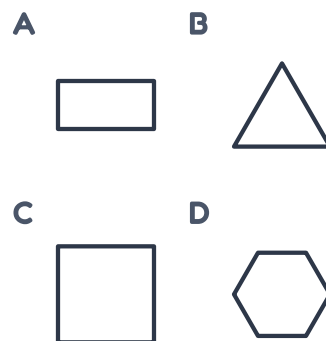
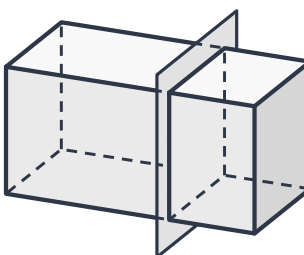
4. Cut straight down to the apex.



5. Cut on a slant.



6. Cut parallel to a side face.



Cross-Sections of Solids

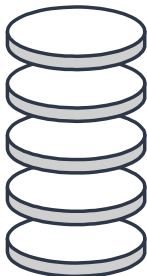
Each picture shows the slices of a solid, bottom to top. Name the solid.

Word bank

cube rectangular prism triangular prism pentagonal prism hexagonal prism
cylinder square pyramid triangular pyramid cone sphere

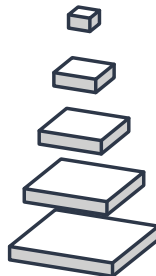
1.

Example

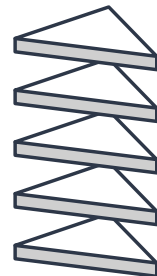


cylinder

2.



3.



4.

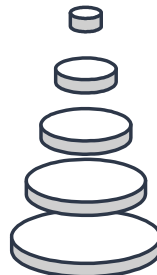


5.

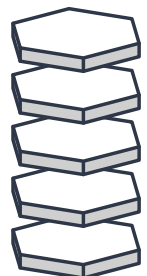


Each square is 3 cm wide.
The solid is 3 cm tall.

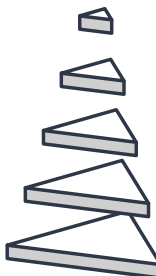
6.



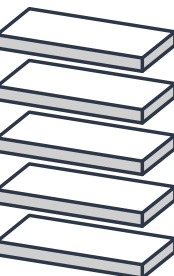
7.



8.



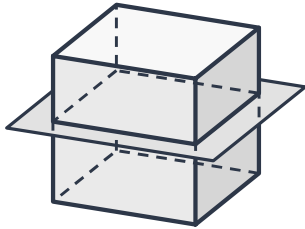
9.



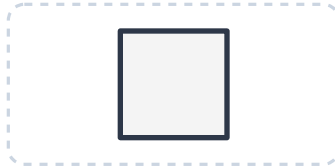
Cross-Sections of Solids

Each prism is cut parallel to its base. Draw and name the cross-section.

1. **Example**

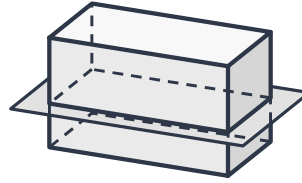


Draw it:



Name: square

2.

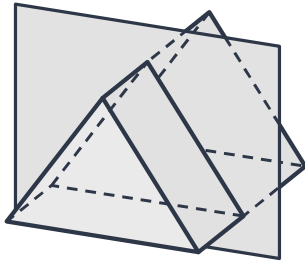


Draw it:

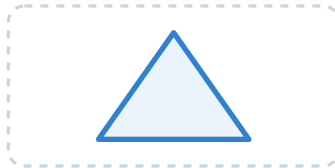


Name: rectangle

3.

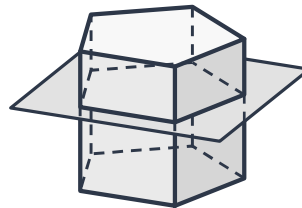


Draw it:

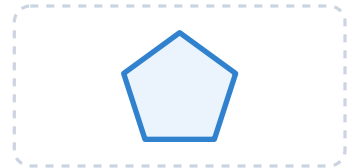


Name: triangle

4.

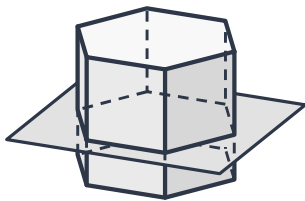


Draw it:

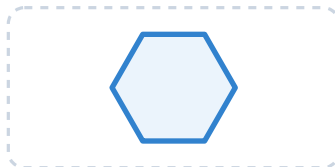


Name: pentagon

5.

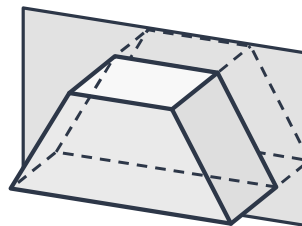


Draw it:

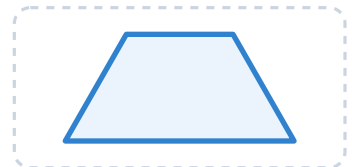


Name: hexagon

6.



Draw it:



Name: trapezium

7. A triangular prism is **15 cm** long. Its two triangular faces have sides of **6 cm**, **8 cm** and **10 cm**. It is cut parallel to a triangular face, **5 cm** from one end. How long are the sides of the cross-section?

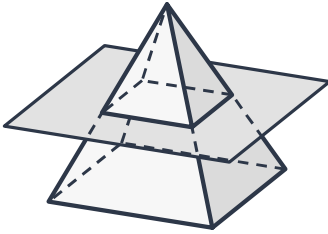
The sides are 6 cm, 8 cm and 10 cm.

In a right prism, every slice parallel to the base matches the base exactly.

Cross-Sections of Solids

Each solid is cut parallel to its base. Name and compare the slices.

1. **Example**



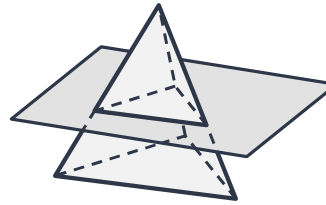
Shape:

square

Compared with
the base it is:

bigger
the same
smaller

2.



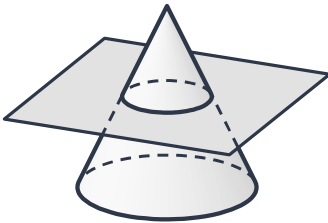
Shape:

triangle

Compared with
the base it is:

bigger
the same
smaller

3.



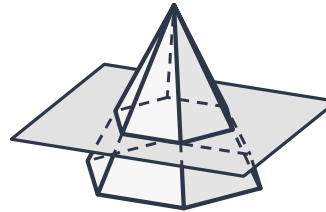
Shape:

circle

Compared with
the base it is:

bigger
the same
smaller

4.



Shape:

hexagon

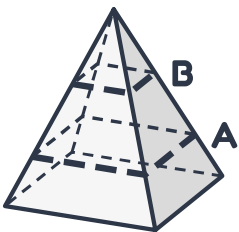
Compared with
the base it is:

bigger
the same
smaller

Which slice is bigger? Circle A, B or same.

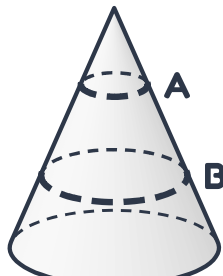
5.

Example



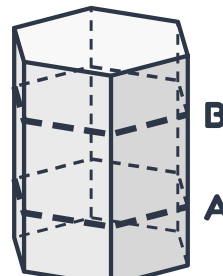
A B same

6.



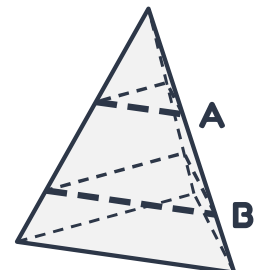
A **B** same

7.



A B **same**

8.



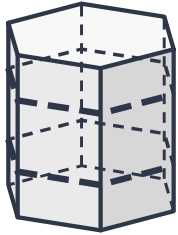
A **B** same

Cross-Sections of Solids

Slice each solid parallel to its base. Is it a prism? Tick Yes or No.

The slice test: a right prism has flat faces, and every slice parallel to its base is the same shape and size.

1. **Example**



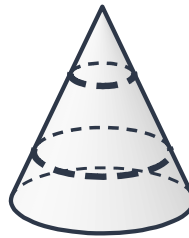
Slices: hexagon

Yes No

Same size? ☒ Yes ☐ No

Prism? ☒ Yes ☐ No

2.



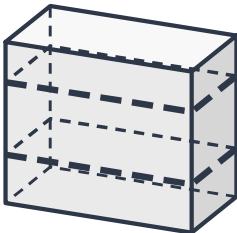
Slices: circle

Yes No

Same size? ☐ Yes ☒ No

Prism? ☐ Yes ☒ No

3.



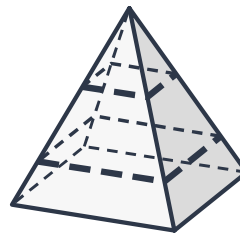
Slices: rectangle

Yes No

Same size? ☒ Yes ☐ No

Prism? ☒ Yes ☐ No

4.



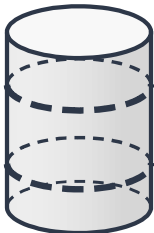
Slices: square

Yes No

Same size? ☐ Yes ☒ No

Prism? ☐ Yes ☒ No

5.



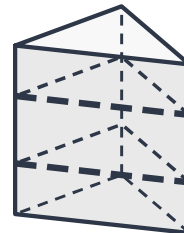
Slices: circle

Yes No

Same size? ☒ Yes ☐ No

Prism? ☐ Yes ☒ No

6.



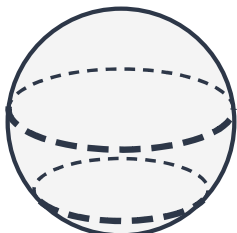
Slices: triangle

Yes No

Same size? ☒ Yes ☐ No

Prism? ☒ Yes ☐ No

7.



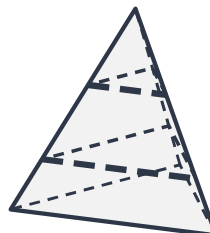
Slices: circle

Yes No

Same size? ☐ Yes ☒ No

Prism? ☐ Yes ☒ No

8.



Slices: triangle

Yes No

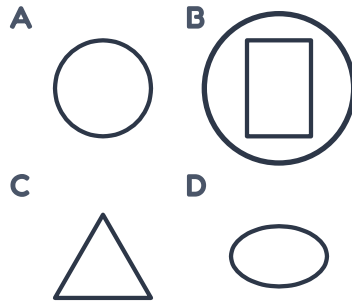
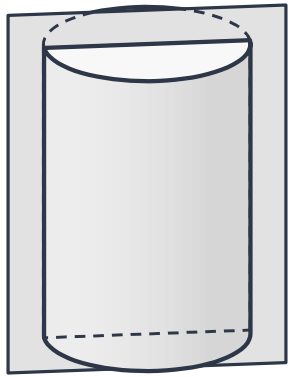
Same size? ☐ Yes ☒ No

Prism? ☐ Yes ☒ No

Cross-Sections of Solids

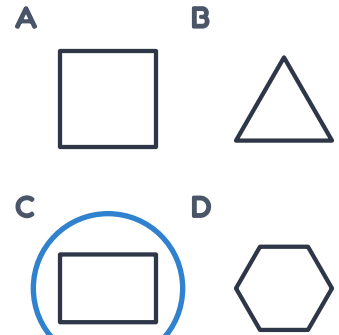
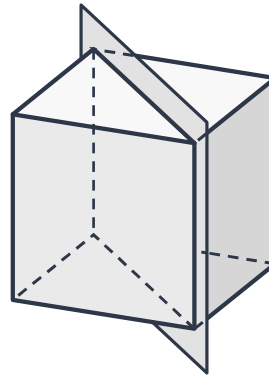
Each solid is cut a new way. Circle the shape of the cross-section.

1. Cut straight down the middle.

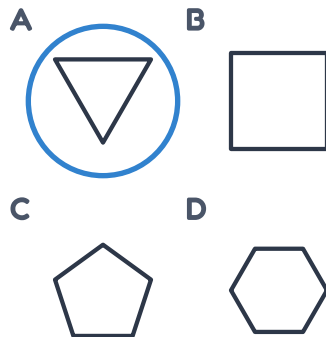
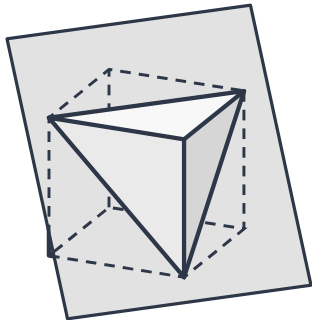


Example

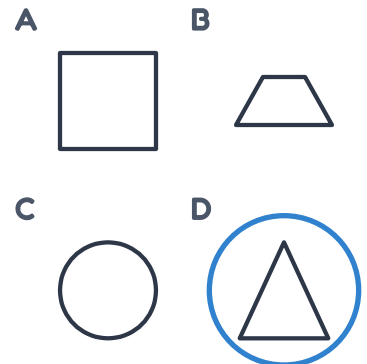
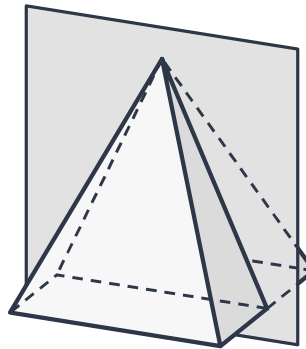
2. Cut from corner to corner.



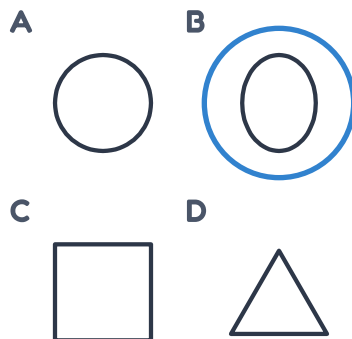
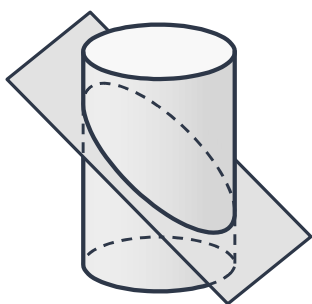
3. Cut through three corners.



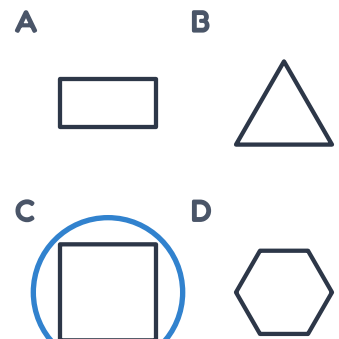
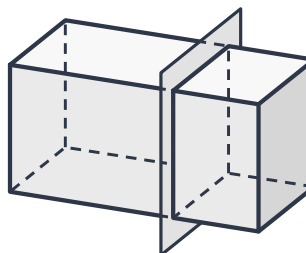
4. Cut straight down to the apex.



5. Cut on a slant.



6. Cut parallel to a side face.



Cross-Sections of Solids

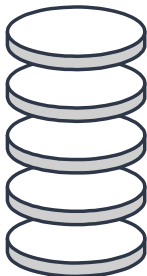
Each picture shows the slices of a solid, bottom to top. Name the solid.

Word bank

cube rectangular prism triangular prism pentagonal prism hexagonal prism
cylinder square pyramid triangular pyramid cone sphere

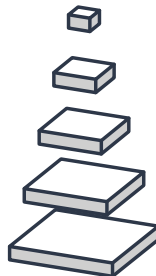
1.

Example



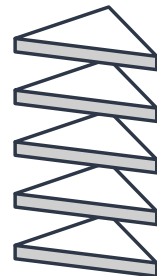
cylinder

2.



square pyramid

3.



triangular prism

4.



sphere

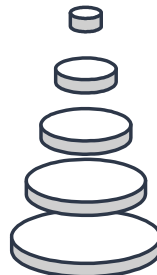
5.



Each square is 3 cm wide.
The solid is 3 cm tall.

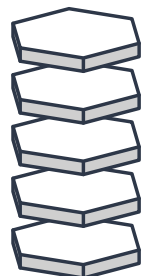
cube

6.



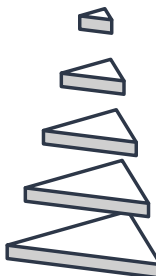
cone

7.



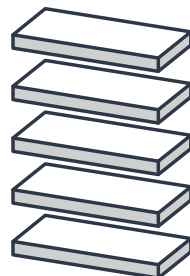
hexagonal prism

8.



triangular pyramid

9.



rectangular prism