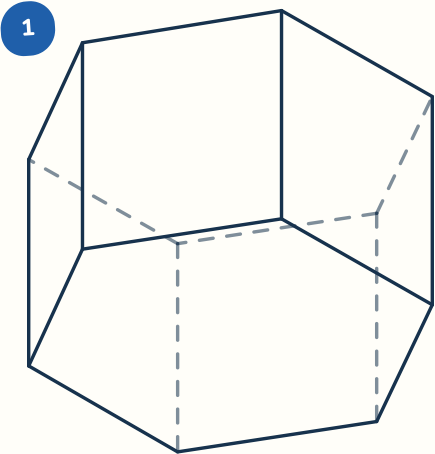


Solid parts — Faces, edges and vertices

Name: _____

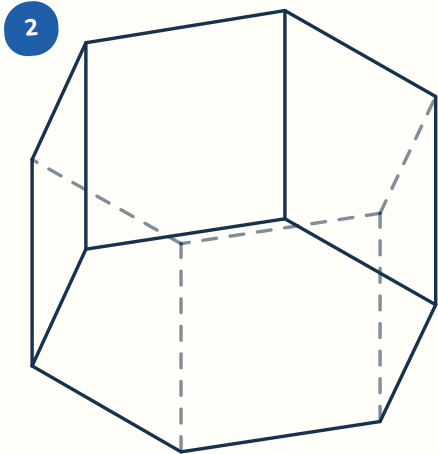
Date: _____

Hidden edges are dashed. Answer the question under each solid.



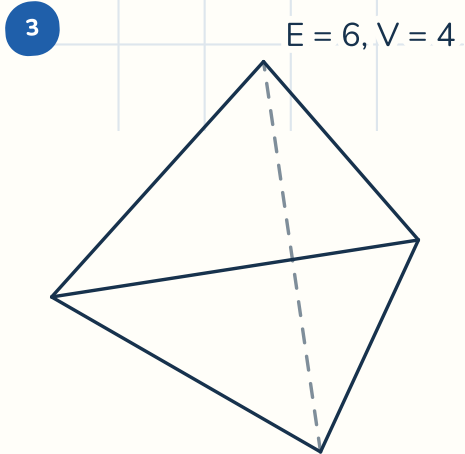
How many edges?

18



How many vertices?

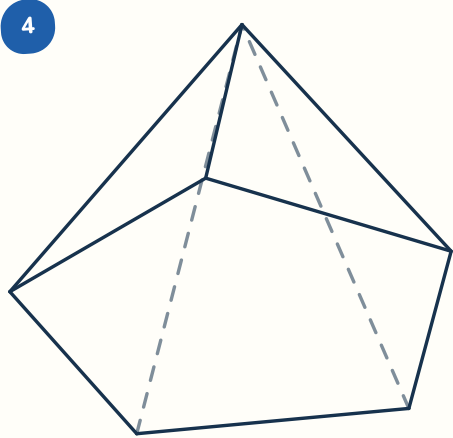
—



$E = 6, V = 4$

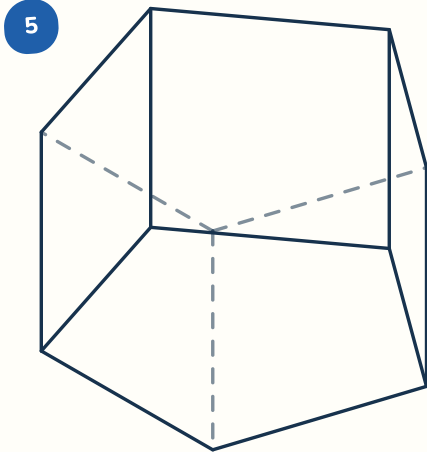
How many faces?

—



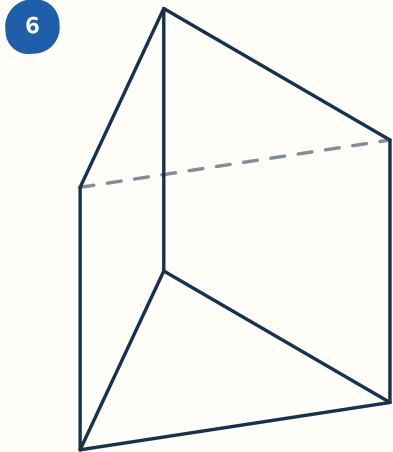
How many edges?

—



How many edges?

—



How many faces?

—



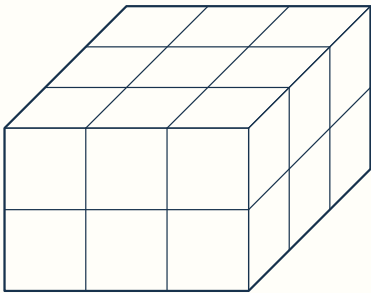
Unit cubes — Sides to 5

Name: _____

Date: _____

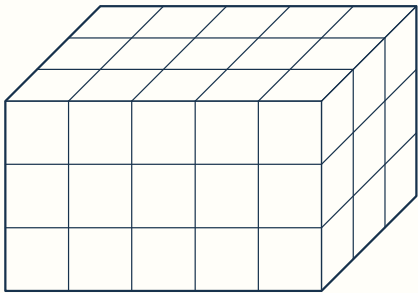
Each small cube is 1 cm³. Count the cubes in each block.

1



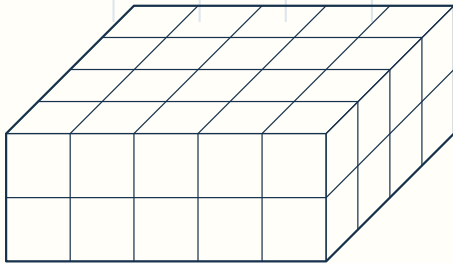
18 cm³

2



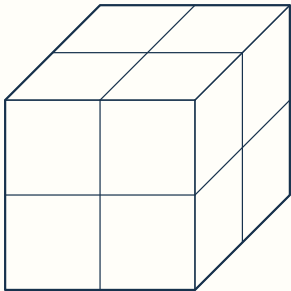
_____ cm³

3



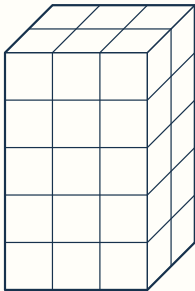
_____ cm³

4



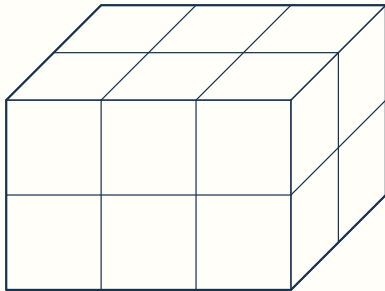
_____ cm³

5



_____ cm³

6



_____ cm³



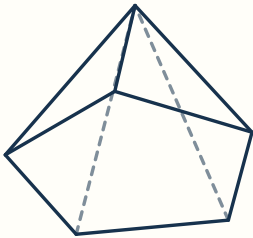
Cross-sections — Cuts parallel to the base

Name: _____

Date: _____

Each solid is cut parallel to its base. Circle the face this leaves.

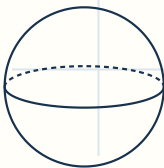
1



cut parallel to the base

- Triangle
- Rectangle
- Pentagon
- Hexagon
- Circle

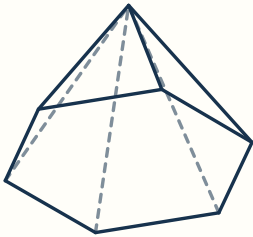
2



cut by a plane through its center

- Triangle
- Rectangle
- Pentagon
- Hexagon
- Circle

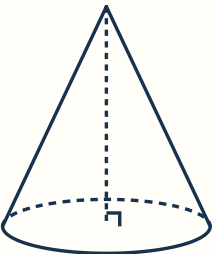
3



cut parallel to the base

- Triangle
- Rectangle
- Pentagon
- Hexagon
- Circle

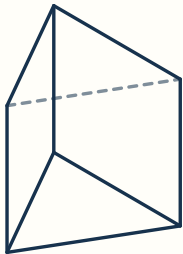
4



cut parallel to the base

- Triangle
- Rectangle
- Pentagon
- Hexagon
- Circle

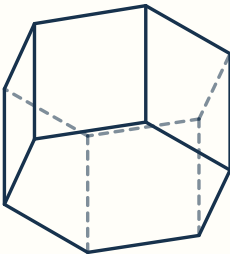
5



cut parallel to the base

- Triangle
- Rectangle
- Pentagon
- Hexagon
- Circle

6



cut parallel to the base

- Triangle
- Rectangle
- Pentagon
- Hexagon
- Circle



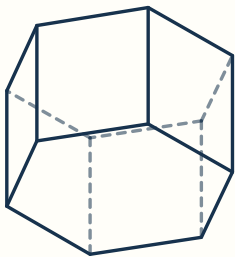
Cross-sections — Cuts down the middle

Name: _____

Date: _____

Each solid is cut straight down the middle. Circle the face it leaves.

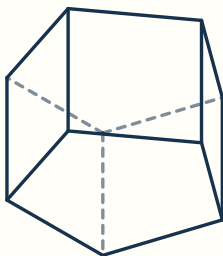
1



cut straight down through the middle

- Triangle
- Rectangle**
- Pentagon
- Hexagon
- Circle

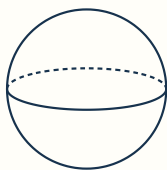
3



cut straight down through the middle

- Triangle
- Rectangle
- Pentagon
- Hexagon
- Circle

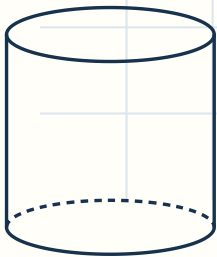
5



cut by a plane through its center

- Triangle
- Rectangle
- Pentagon
- Hexagon
- Circle

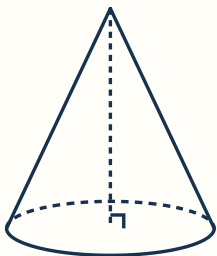
2



cut straight down through the middle

- Triangle
- Rectangle
- Pentagon
- Hexagon
- Circle

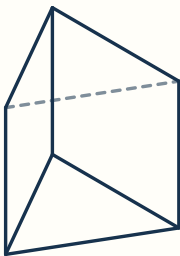
4



cut straight down through the middle

- Triangle
- Rectangle
- Pentagon
- Hexagon
- Circle

6



cut straight down through the middle

- Triangle
- Rectangle
- Pentagon
- Hexagon
- Circle



Power Pack · Solids: parts, cubes and cuts — Answer key

Faces, edges and vertices

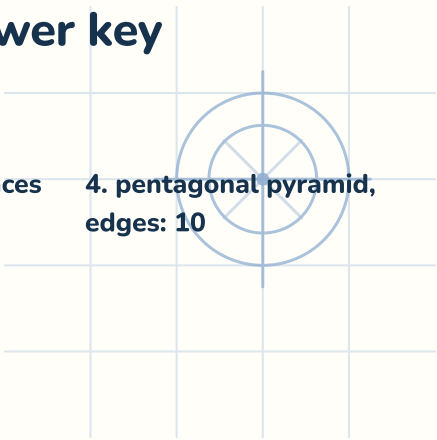
1. hexagonal prism, edges: 18

2. hexagonal prism, vertices: 12

3. triangular pyramid, faces (from the other two): 4

4. pentagonal pyramid, edges: 10
5. pentagonal prism, edges: 15

6. triangular prism, faces: 5



Counting unit cubes

1. $3 \times 3 \times 2$: 18 cm³

2. $5 \times 3 \times 3$: 45 cm³

3. $5 \times 4 \times 2$: 40 cm³

4. $2 \times 2 \times 2$: 8 cm³
5. $3 \times 2 \times 5$: 30 cm³

6. $3 \times 2 \times 2$: 12 cm³

Cutting parallel to the base

1. 5-sided pyramid, cut parallel: Pentagon

2. sphere, cut parallel: Circle

3. 6-sided pyramid, cut parallel: Hexagon

4. cone, cut parallel: Circle
5. 3-sided prism, cut parallel: Triangle

6. 6-sided prism, cut parallel: Hexagon

Cutting down the middle

1. 6-sided prism, cut down the middle: Rectangle

2. cylinder, cut down the middle: Rectangle

3. 5-sided prism, cut down the middle: Rectangle

4. cone, cut down the middle: Triangle
5. sphere, cut down the middle: Circle

6. 3-sided prism, cut down the middle: Rectangle