

# THREE-DIMENSIONAL SHAPES

## A THREE-DIMENSIONAL SHAPES

### A.1 IDENTIFYING FLAT OR SOLID SHAPES

**MCQ 1:** Is this shape flat or solid?



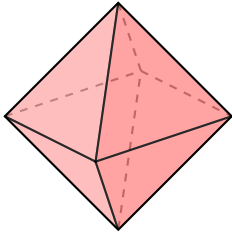
**Pick the right answer:**

☒ 2D shape

☐ 3D shape

*Answer:* It is a 2D shape because it's flat, with only length and width.

**MCQ 2:** Is this shape flat or solid?



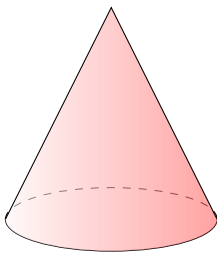
**Pick the right answer:**

☐ 2D shape

☒ 3D shape

*Answer:* It is a 3D shape because it's solid, with length, width, and depth.

**MCQ 3:** Is this shape flat or solid?



**Pick the right answer:**

☐ 2D shape

☒ 3D shape

*Answer:* It is a 3D shape because it's solid, with length, width, and depth.

**MCQ 4:** Is this shape flat or solid?



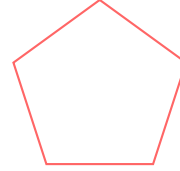
**Pick the right answer:**

☒ 2D shape

☐ 3D shape

*Answer:* It is a 2D shape because it's flat, with only length and width.

**MCQ 5:** Is this shape flat or solid?



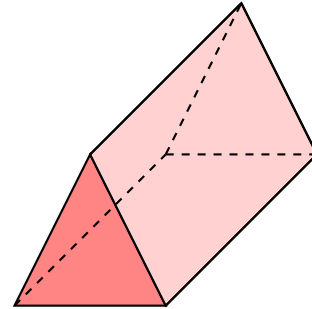
**Pick the right answer:**

☒ 2D shape

☐ 3D shape

*Answer:* It is a 2D shape because it's flat, with only length and width.

**MCQ 6:** Is this shape flat or solid?



**Pick the right answer:**

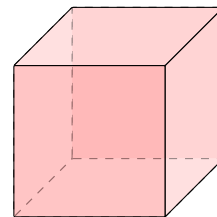
☐ 2D shape

☒ 3D shape

*Answer:* It is a 3D shape because it's solid, with length, width, and depth.

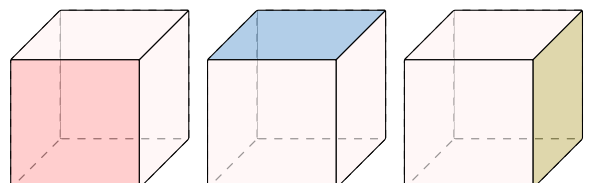
### A.2 COUNTING FACES

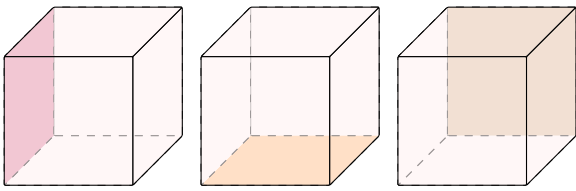
**Ex 7:** How many faces does this cube have?



**6** faces

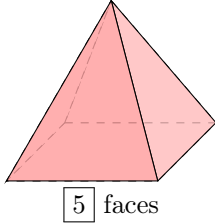
*Answer:* Count each flat surface to find the number of faces.





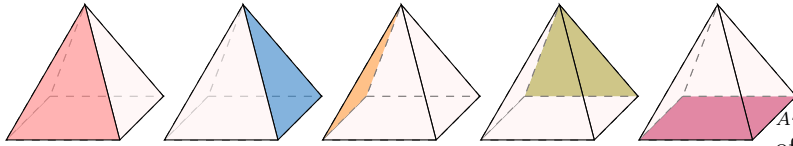
There 6 faces.

**Ex 8:** How many faces does this square Pyramid have?



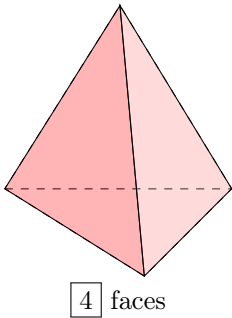
5 faces

*Answer:* Count each flat surface to find the number of faces



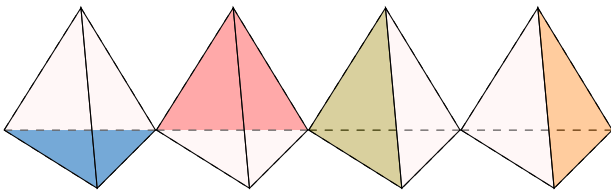
There are 5 faces.

**Ex 9:** How many faces does this triangular pyramid have?



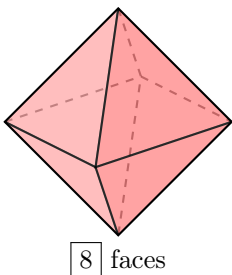
4 faces

*Answer:* Count each flat surface to find the number of faces.



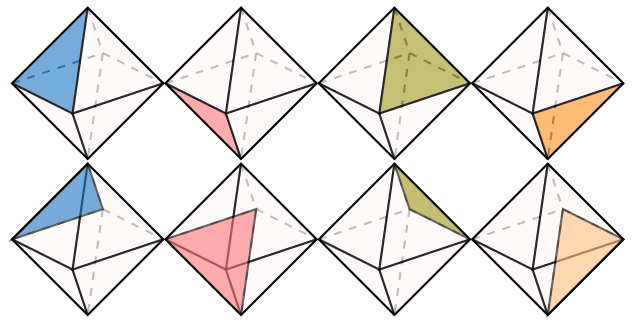
There are 4 faces.

**Ex 10:** How many faces does this eight-faced die have?



8 faces

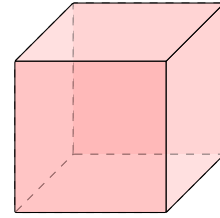
*Answer:* Count each flat surface to find the number of faces.



There are 8 faces.

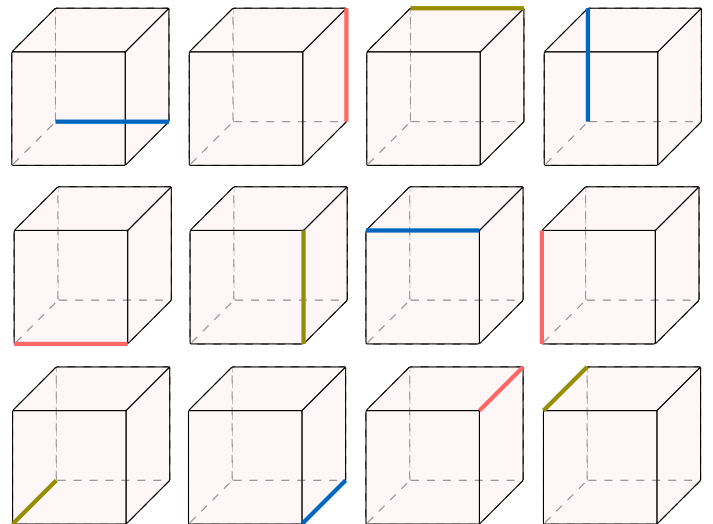
### A.3 COUNTING EDGES

**Ex 11:** How many edges does this cube have?



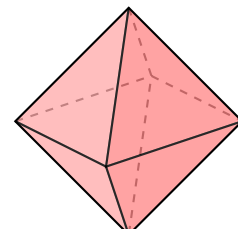
12 edges

*Answer:* Count each line where two faces meet to find the number of edges.



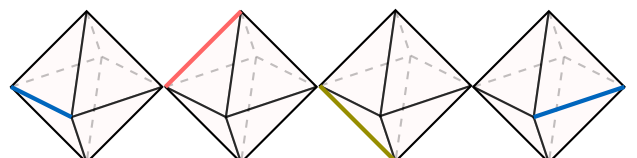
There are 12 edges.

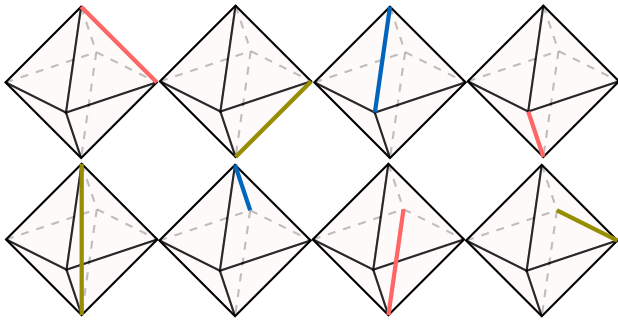
**Ex 12:** How many edges does this eight-faced die have?



12 edges

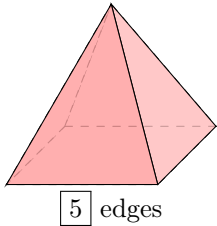
*Answer:* Count each line where two faces meet to find the number of edges.





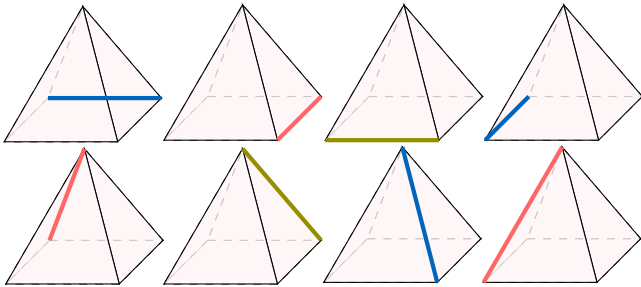
There are **12 edges**.

**Ex 13:** How many edges does this square Pyramid have?



**5** edges

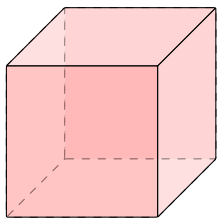
*Answer:* Count each line where two faces meet to find the number of edges.



There are **8 edges**.

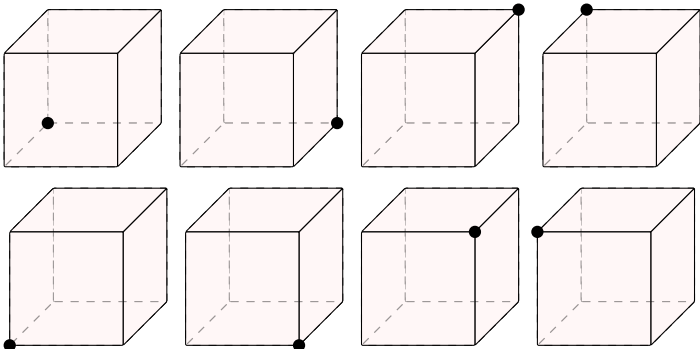
### A.4 COUNTING VERTICES

**Ex 14:** How many vertices does this cube have?



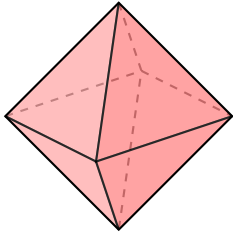
**8** vertices

*Answer:* Count each corner where the lines meet to find the number of vertices.



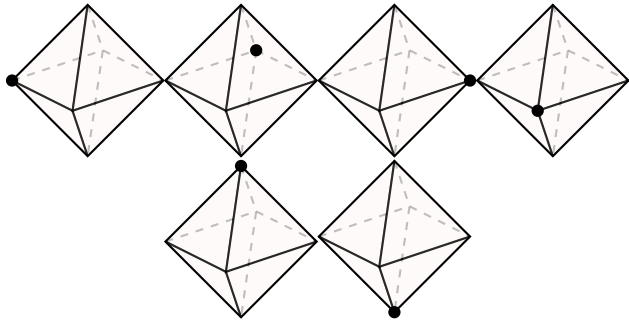
There are **8 vertices**.

**Ex 15:** How many vertices does this eight-faced die have?



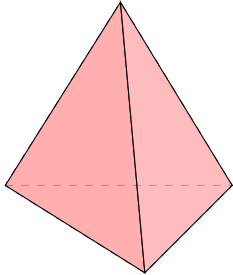
**6** vertices

*Answer:* Count each corner where the lines meet to find the number of vertices.



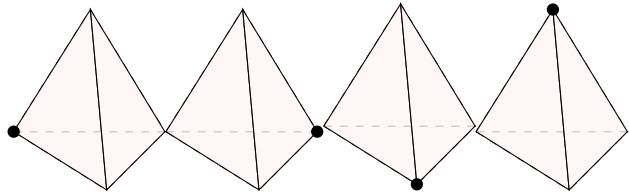
There are **6 vertices**.

**Ex 16:** How many vertices does this triangular pyramid have?



**4** vertices

*Answer:* Count each corner where the lines meet to find the number of vertices.

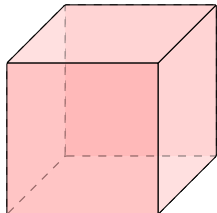


There are **4 vertices**.

## B DRAWING THREE-DIMENSIONAL SHAPES

### B.1 COUNTING VISIBLE AND HIDDEN EDGES

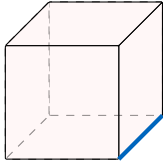
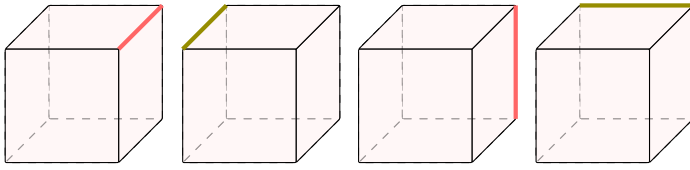
**Ex 17:** Count the number of visible and hidden edges on this cube



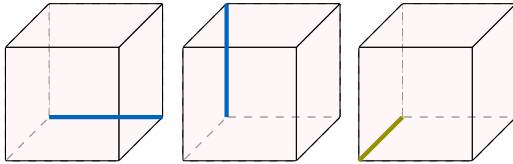
9 visible edges  
3 hidden edges

Answer:

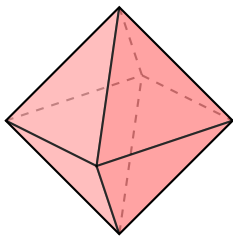
- 9 visible edges:



- 3 hidden edges:



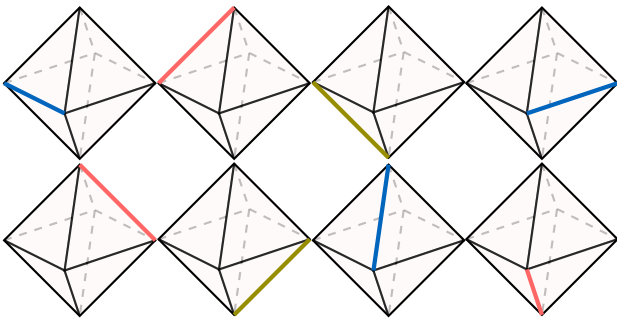
**Ex 18:** Count the number of visible and hidden edges on this eight-faced die.



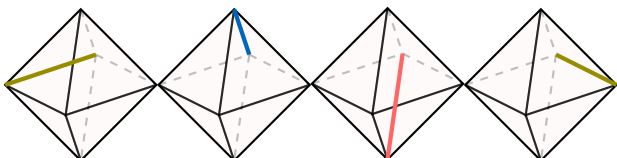
8 visible edges  
4 hidden edges

Answer:

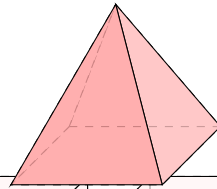
- 8 visible edges



- 4 hidden edges

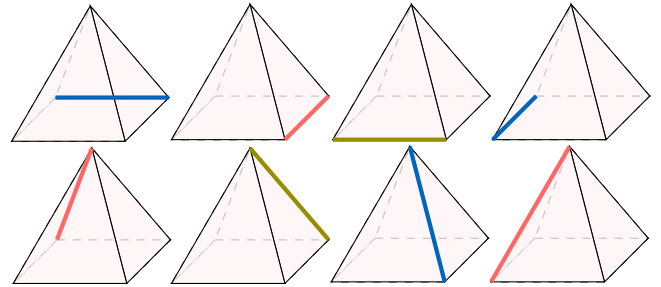


**Ex 19:** Count the number of visible and hidden edges on this square Pyramid.



5 visible edges  
3 hidden edges

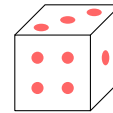
Answer: Count each line where two faces meet to find the number of edges.



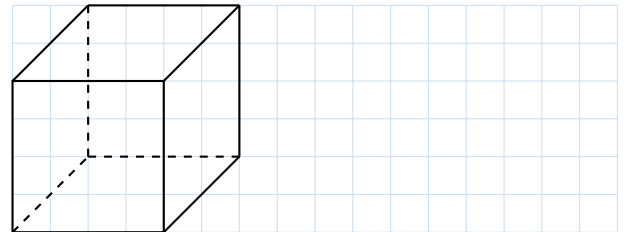
There are 8 edges.

## B.2 DRAWING THREE-DIMENSIONAL SHAPES

**Ex 20:**

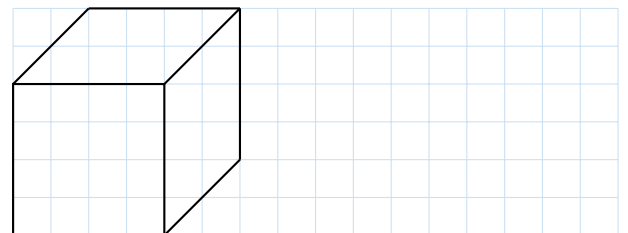


Draw this cube on your graph paper.

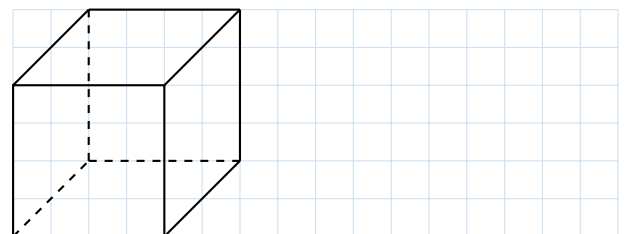


Answer:

1. Draw the visible edges with solid lines:



2. Draw the hidden edges with dotted lines:

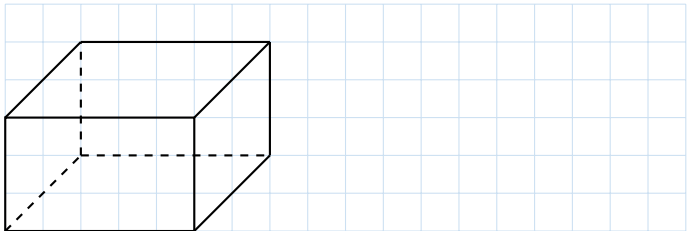




Ex 21:

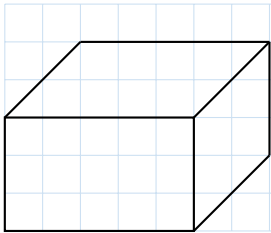


Draw this cube on your graph paper.

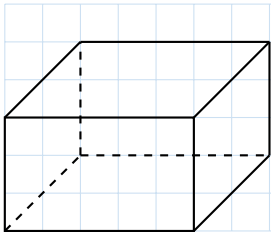


Answer:

1. Draw the visible edges with solid lines:



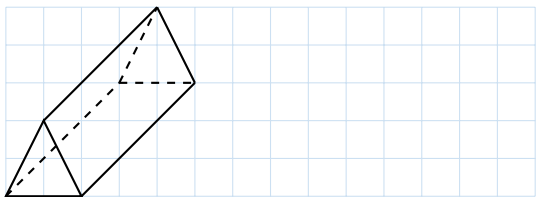
2. Draw the hidden edges with dotted lines:



Ex 22:

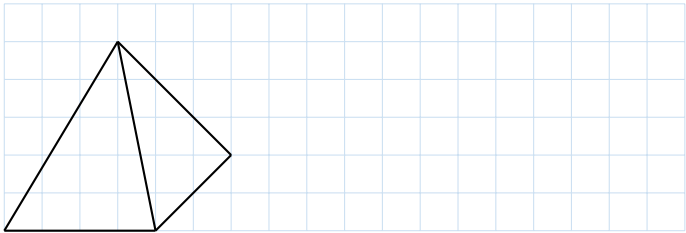


Draw this triangular prism on your graph paper.

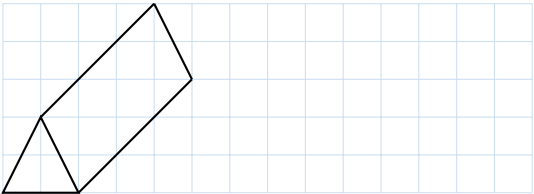
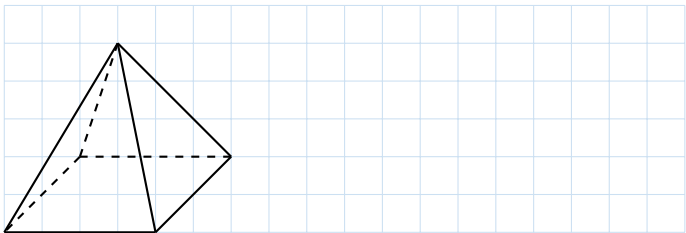


Answer:

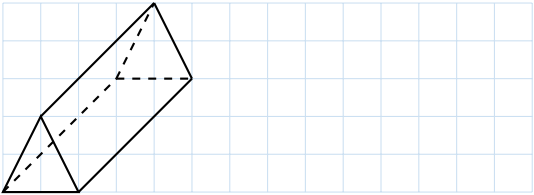
1. Draw the visible edges with solid lines:



2. Draw the hidden edges with dotted lines:



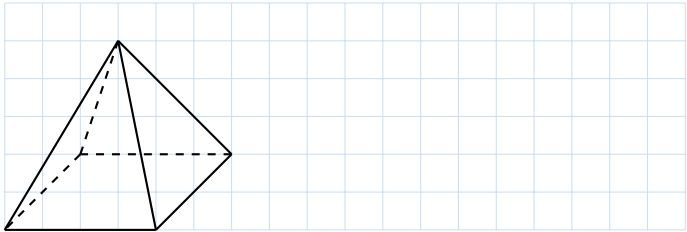
2. Draw the hidden edges with dotted lines:



Ex 23:

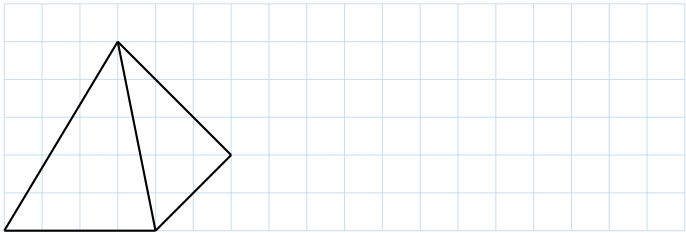


Draw this pyramid on your graph paper.

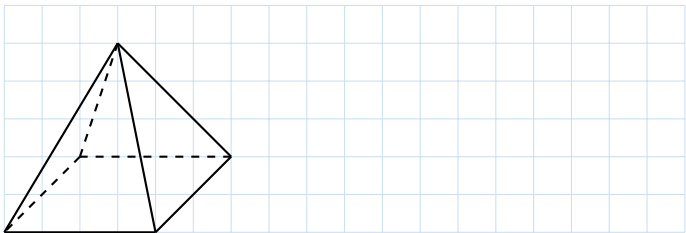


Answer:

1. Draw the visible edges with solid lines:



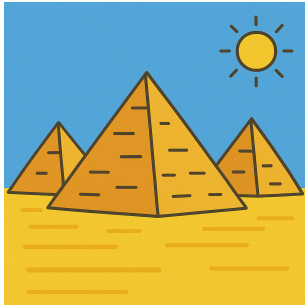
2. Draw the hidden edges with dotted lines:



## C CLASSIFICATION

### C.1 FINDING THE SHAPES

**Ex 24:** Can you find all the pyramids in the picture?



3 pyramids

*Answer:* The picture shows 3 pyramids.

**Ex 25:** Can you find all the cubes in the picture?



2 cubes

*Answer:* A cube is a 3D shape with six equal square faces. Count each cube in the picture. The picture shows boys playing with two cubes. There are **2 cubes**.



**Ex 26:** Can you find all the spheres in the picture?



3 spheres

*Answer:* A sphere is a round 3D shape, like a marble. Count each sphere in the picture. The picture shows a girl playing with 3 marbles, which are 3 spheres. There are **3 spheres**.