TID: v22cb09ma0801

STORYBOARD

PL: Dev Vishnu

TL: Midhilesh Pillai

VCC: Prerna Agarwal

SME: Bela Arora

CSW: Virender Kumar

SB Artist: Virender kumar

9th Grade

Quadrilaterals

2

Cowboy Shot

3

Cowboy Shot

4

Cowboy Shot

5

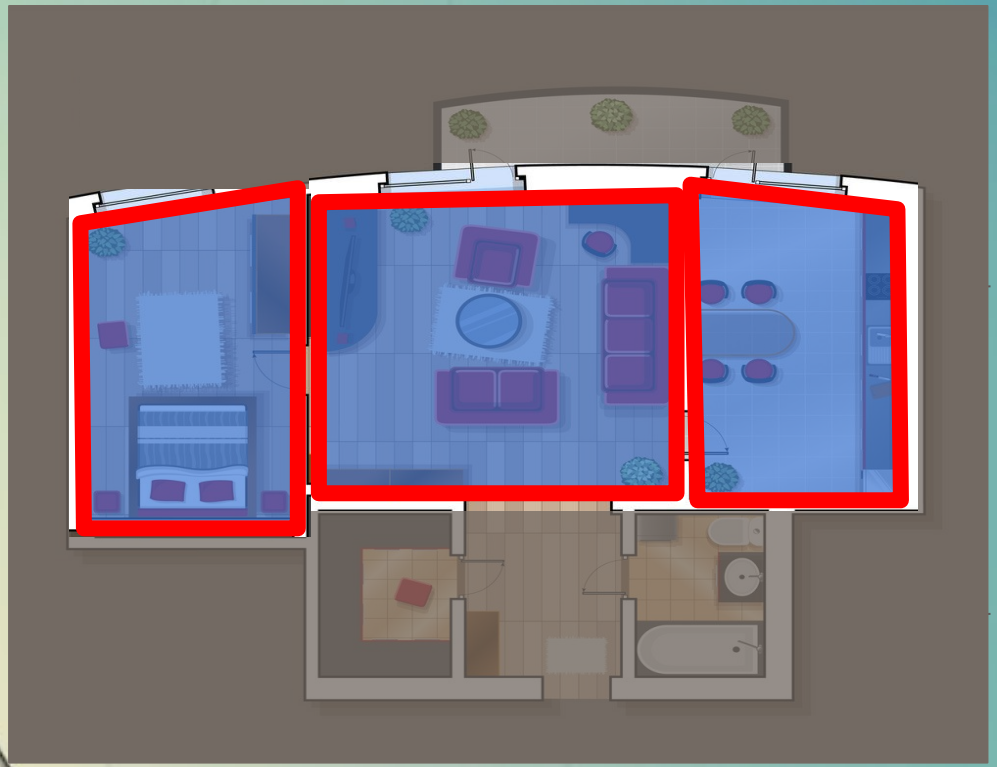
Cowboy Shot

6

Cowboy Shot

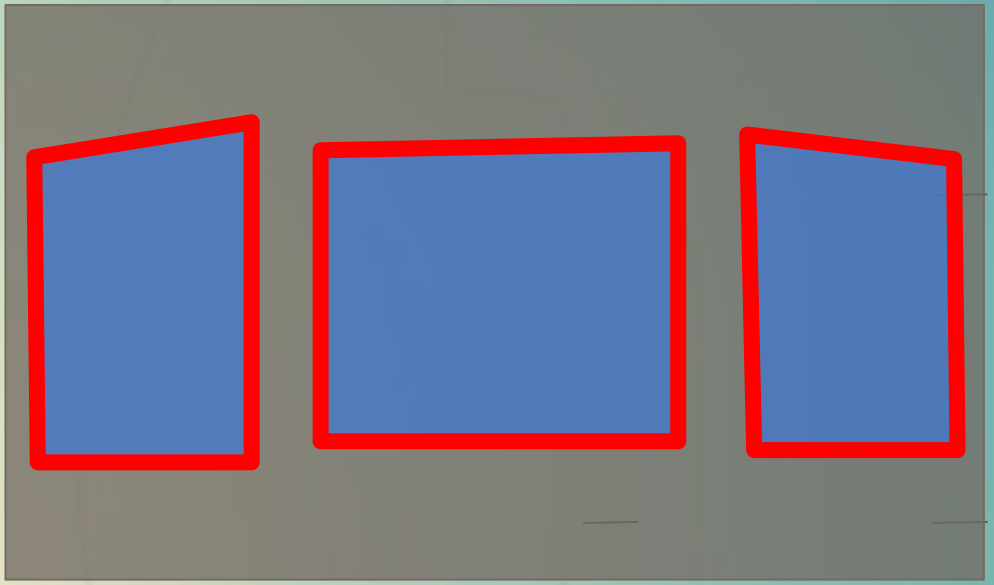
7

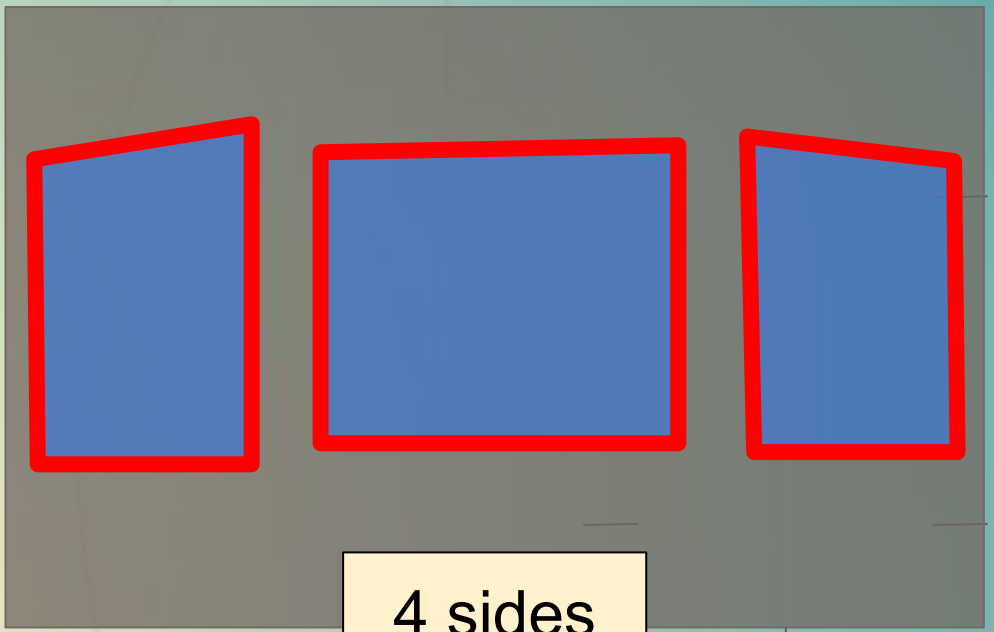
Cowboy Shot



8

Cowboy Shot

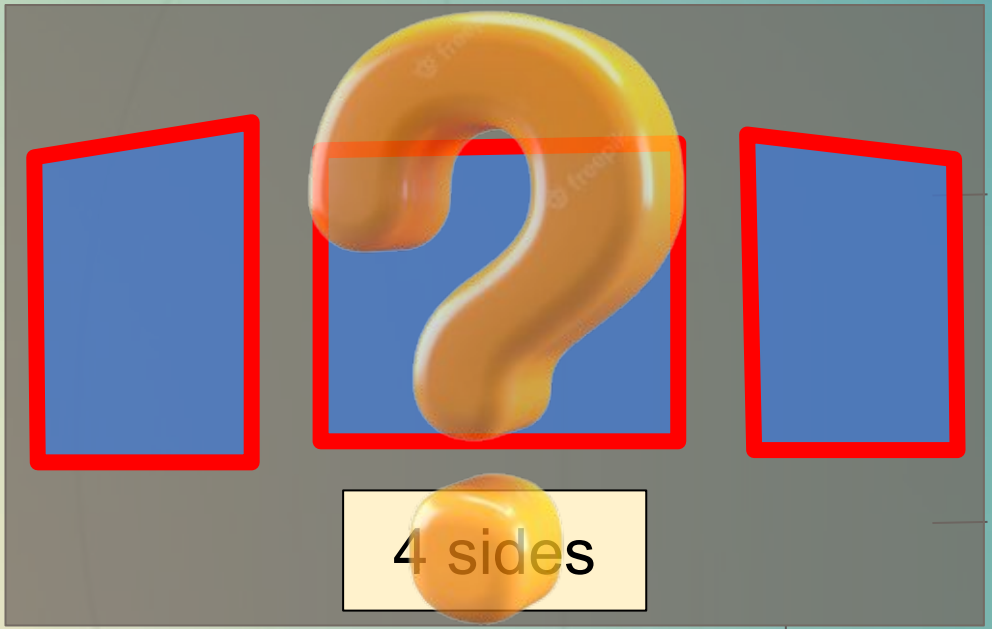




4 sides

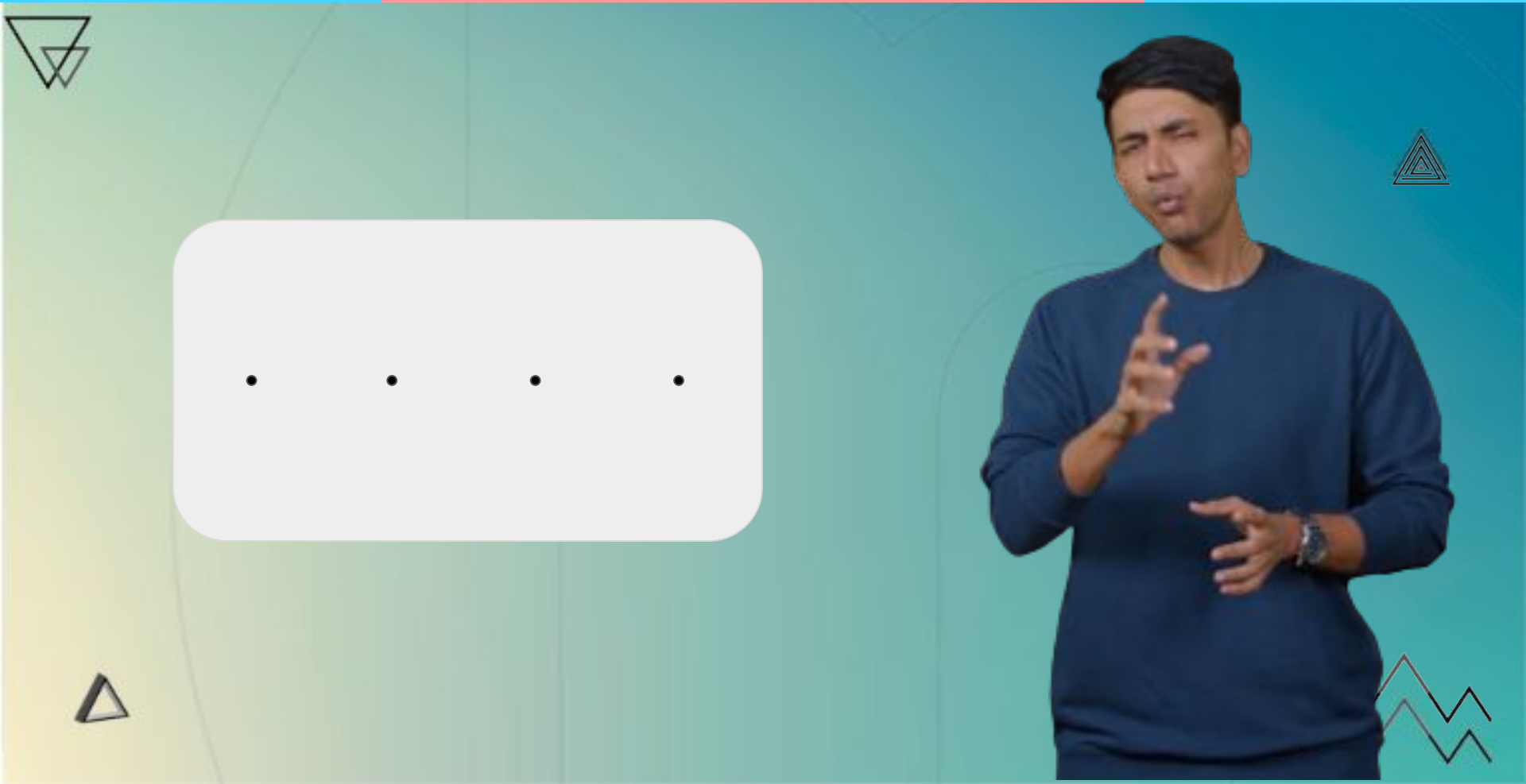
Cowboy Shot

Cowboy Shot



Cowboy Shot

Cowboy Shot



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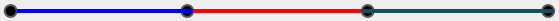
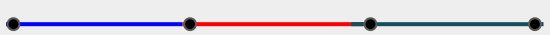
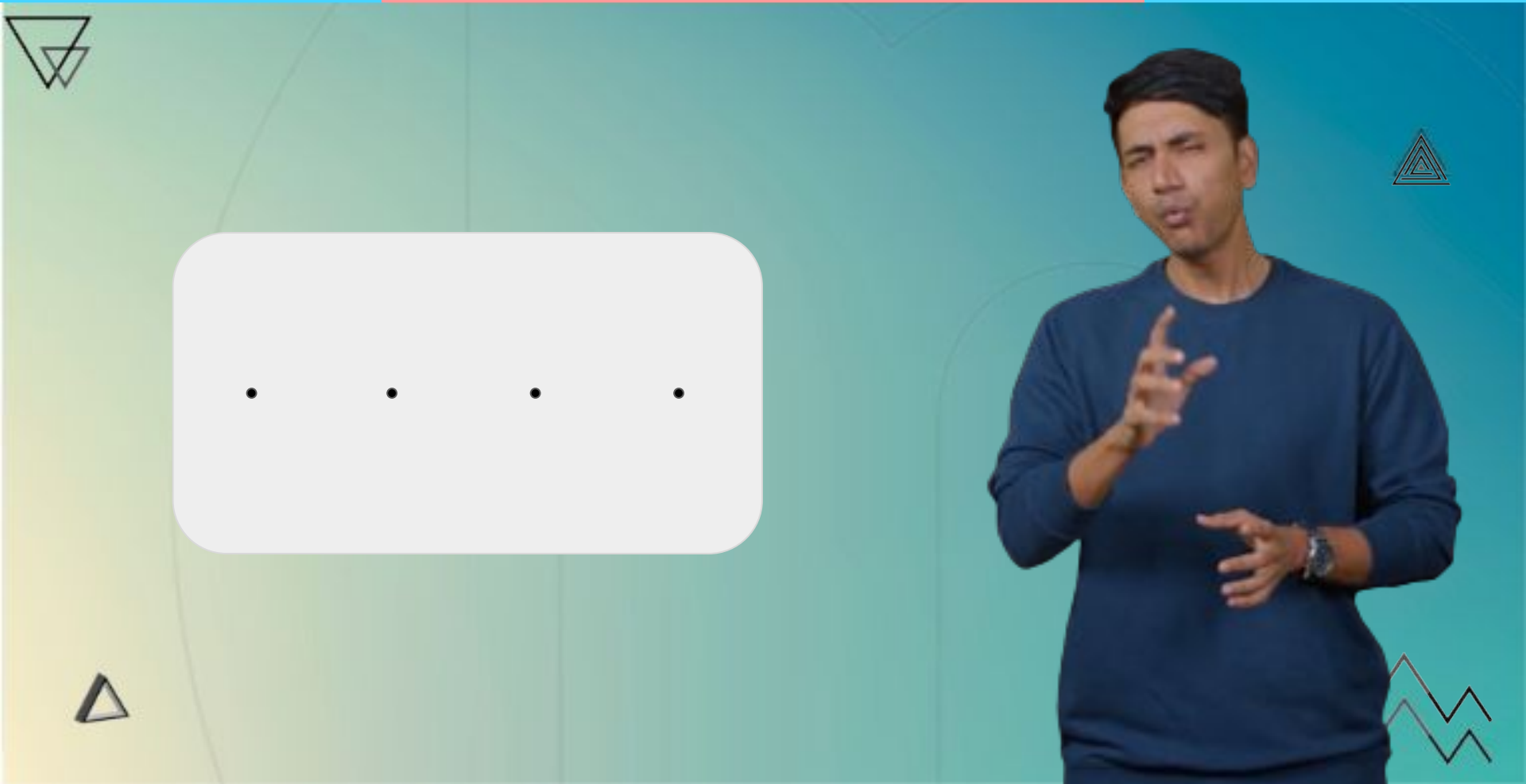




Line Segment

Cowboy Shot



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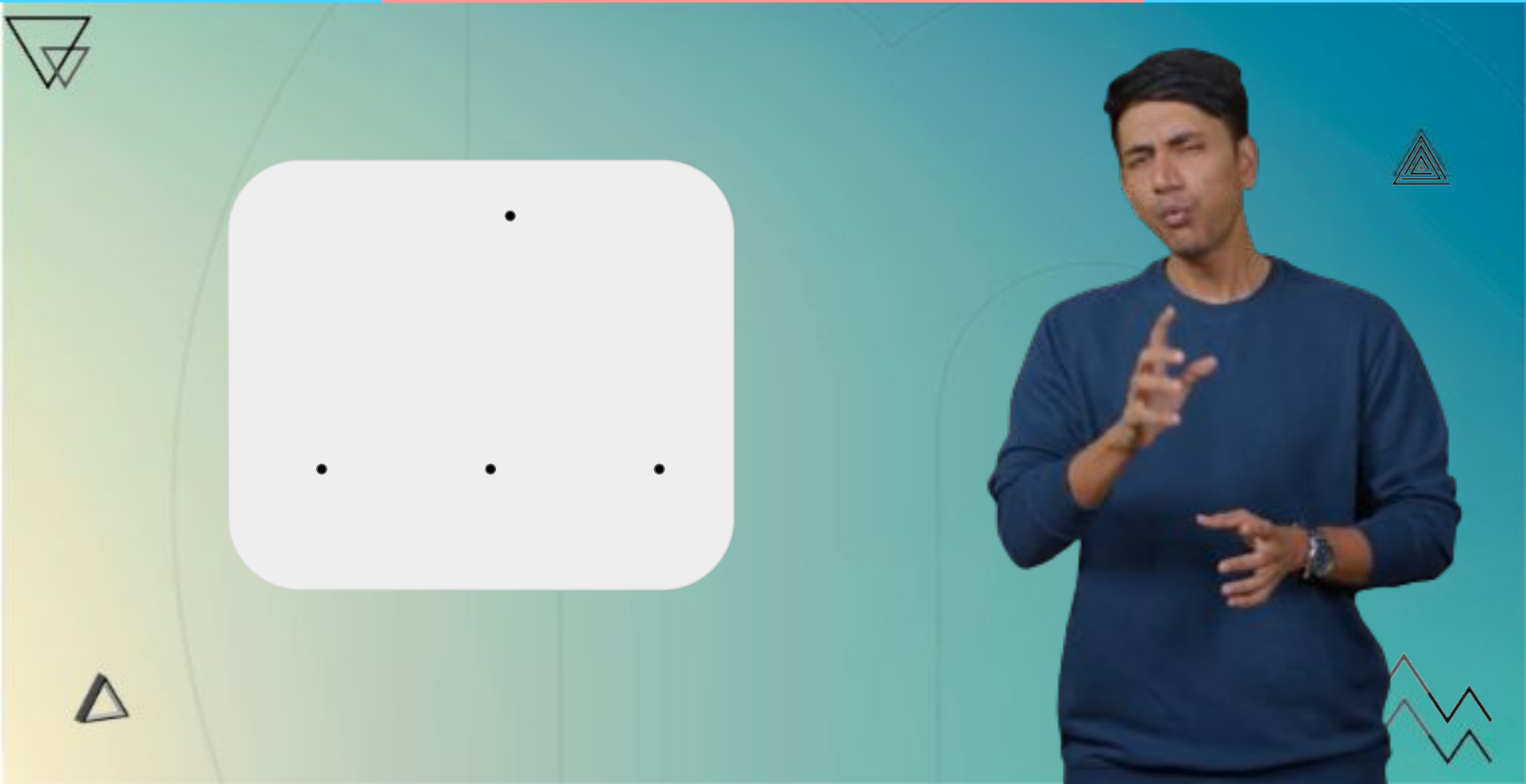

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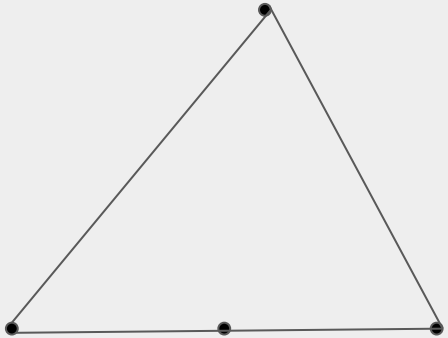

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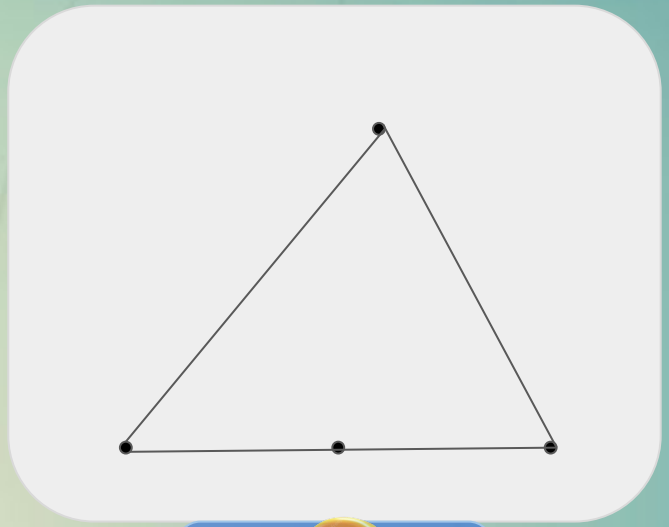
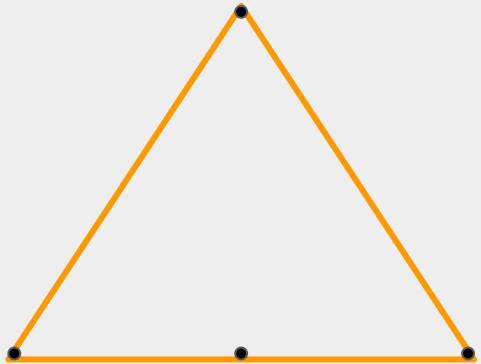
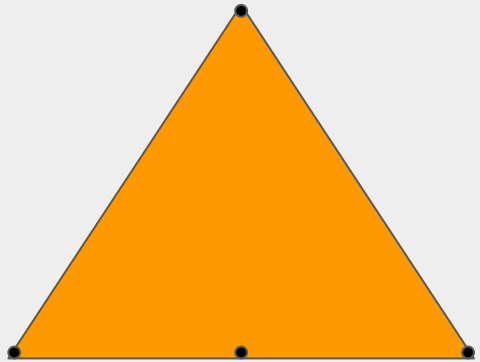




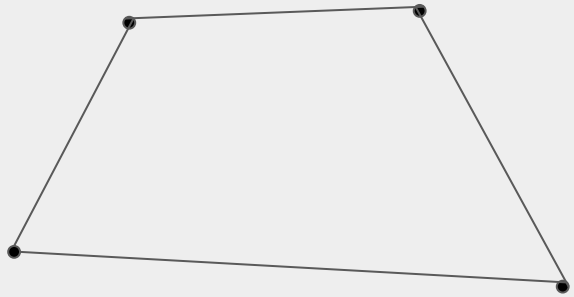
3 sided figure



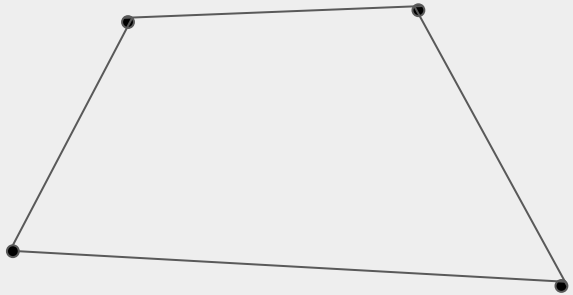
3 sided figure

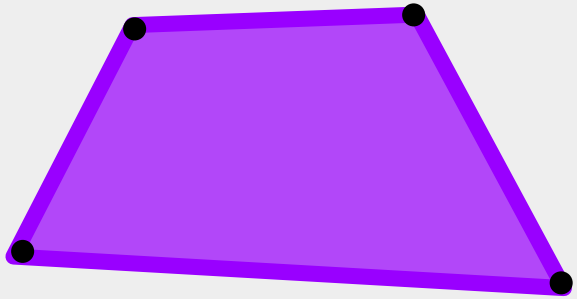
Triangle

No three out of four points are collinear

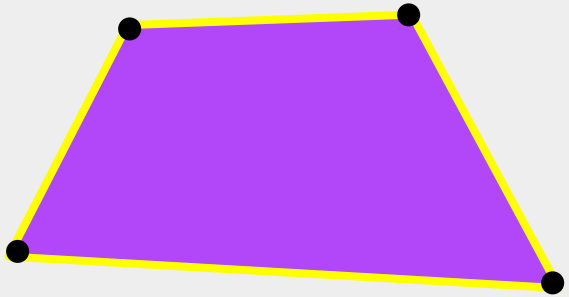


No three out of four points are collinear

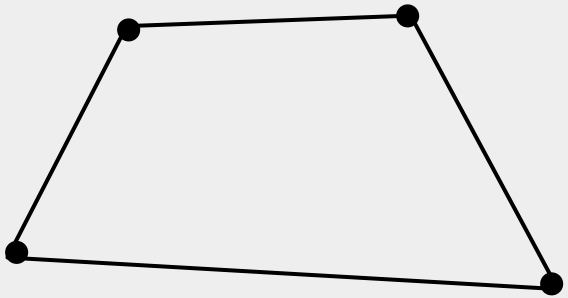




Closed figure

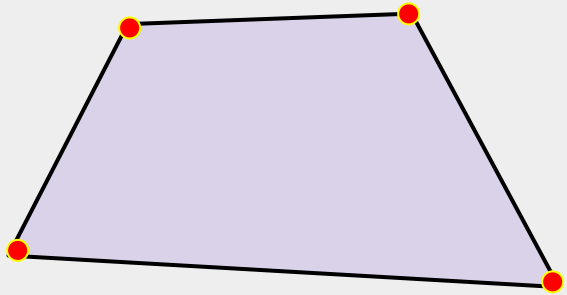


Closed figure — 4 sides

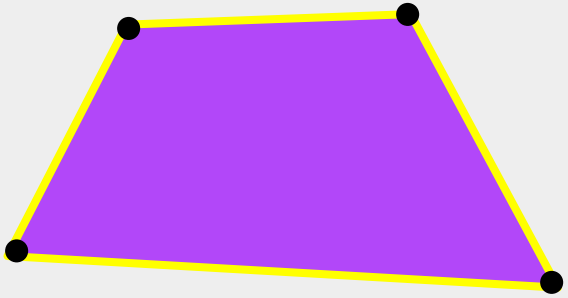


Closed figure

4 sides

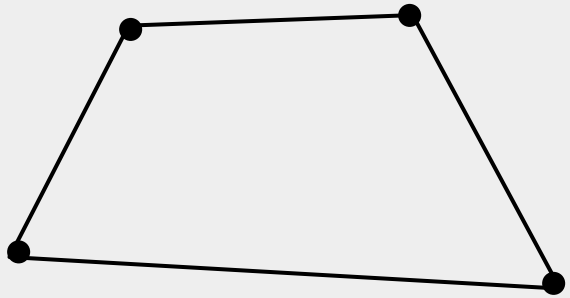


Quadrilaterals



Quadrilaterals

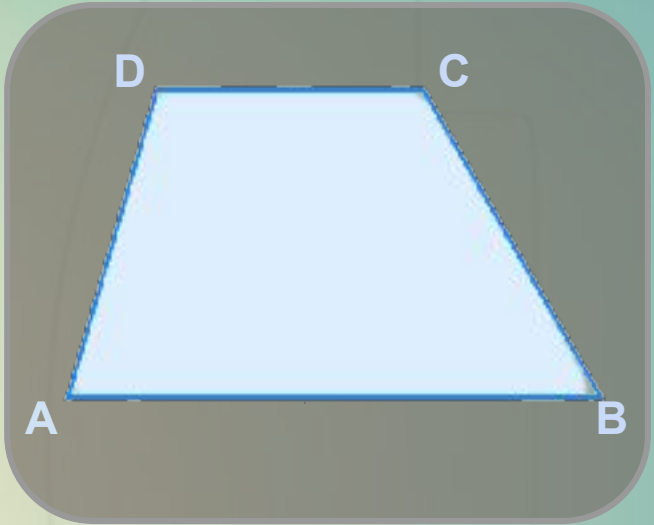
A quadrilateral is a simple closed figure bounded by four line segments in a plane.



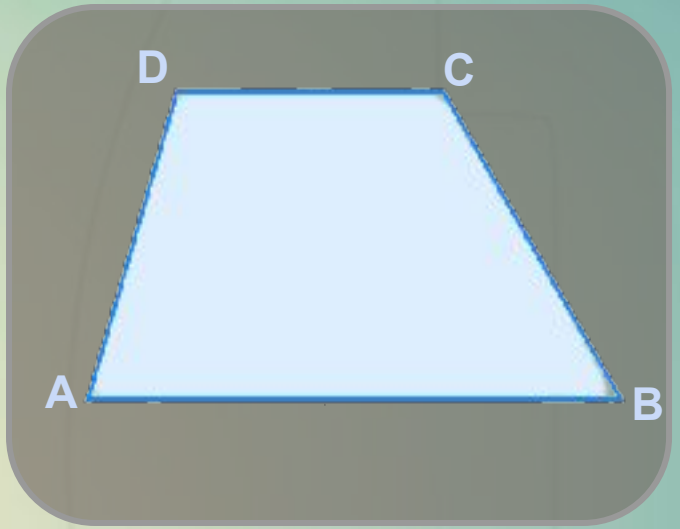
Parts of a Quadrilateral

Parts of a Quadrilateral

Parts of a Quadrilateral

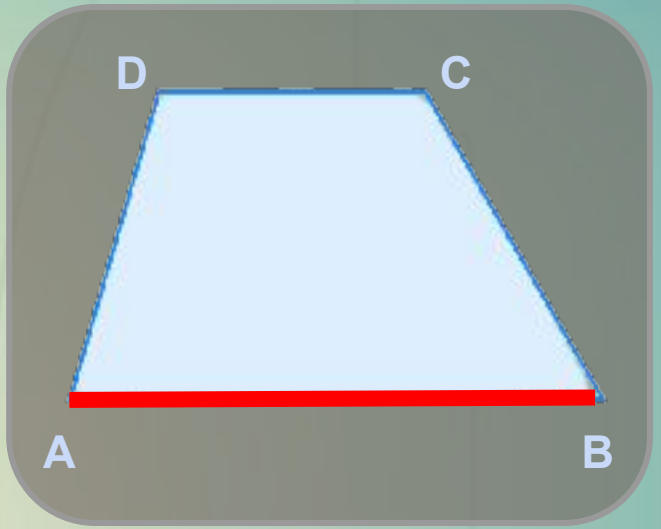


Parts of a Quadrilateral



Sides of □ABCD ?

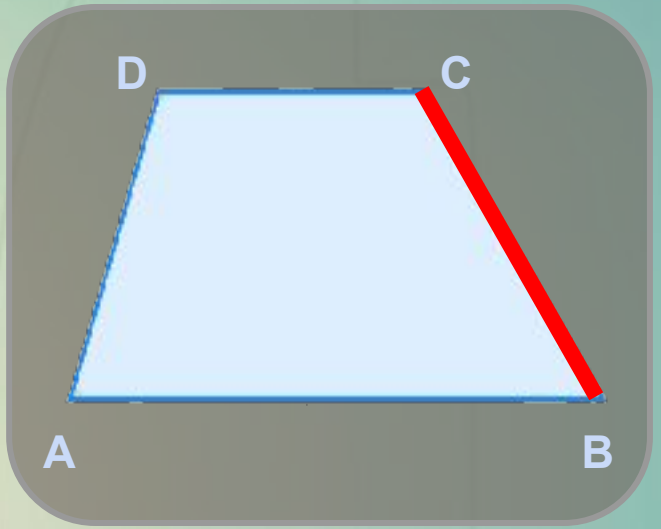
Parts of a Quadrilateral



Sides of □ABCD

$\overline{AB}$

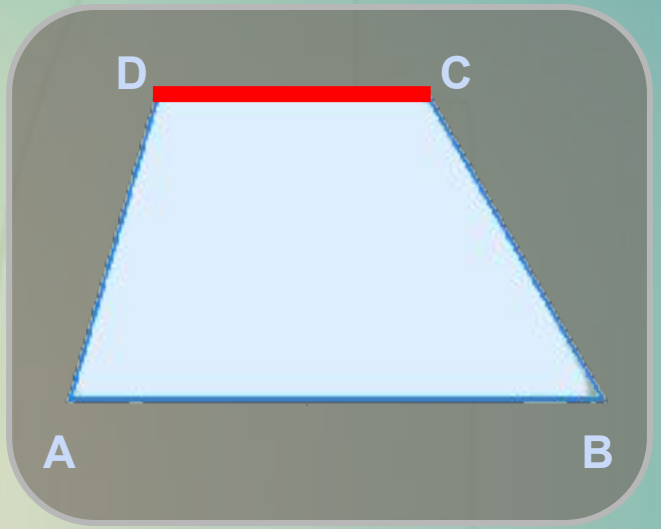
Parts of a Quadrilateral



Sides of □ABCD

- $\overline{AB}$
- $\overline{BC}$

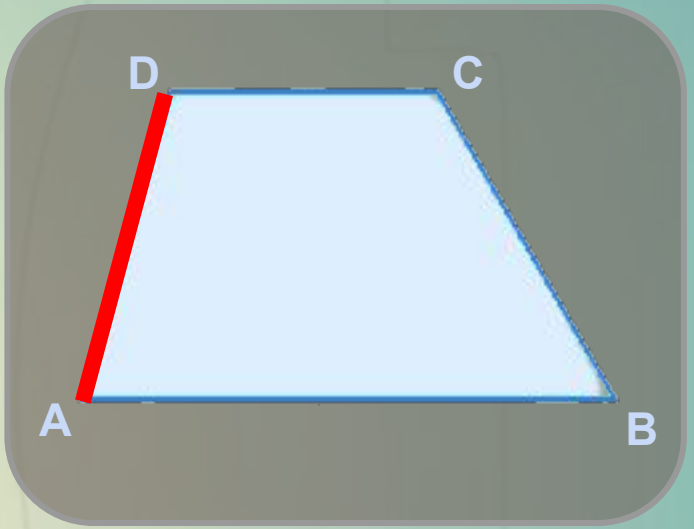
Parts of a Quadrilateral



Sides of □ABCD

- $\overline{AB}$
- $\overline{BC}$
- $\overline{CD}$

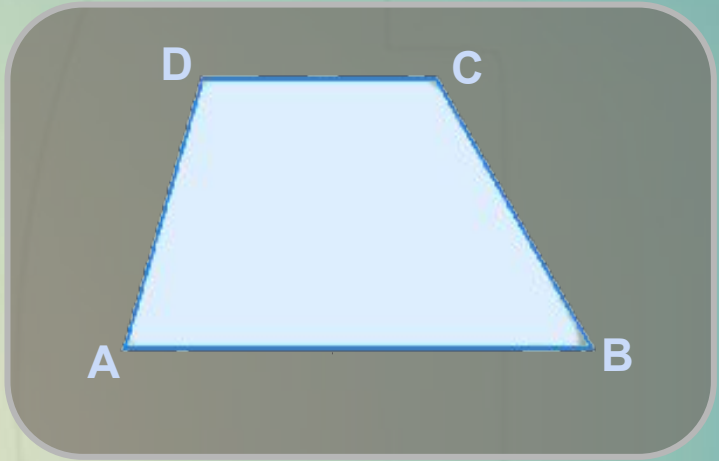
Parts of a Quadrilateral



Sides of □ABCD

- $\overline{AB}$
- $\overline{BC}$
- $\overline{CD}$
- $\overline{DA}$

Parts of a Quadrilateral

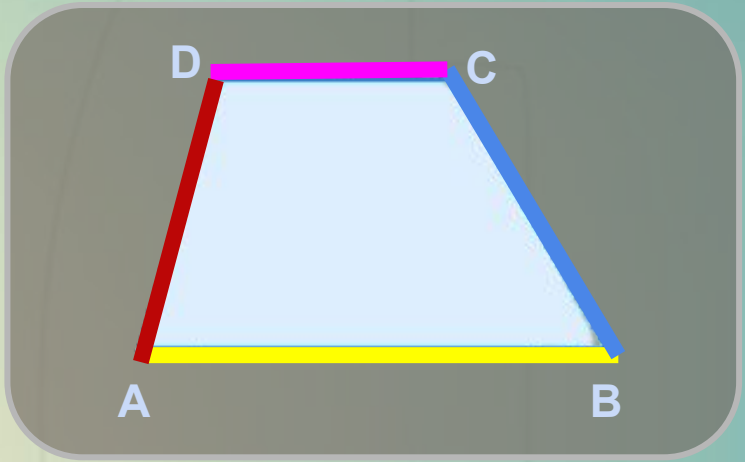


Sides of □ABCD

- $\overline{AB}$
- $\overline{BC}$
- $\overline{CD}$
- $\overline{DA}$

How many sides does a quadrilateral have?

Parts of a Quadrilateral

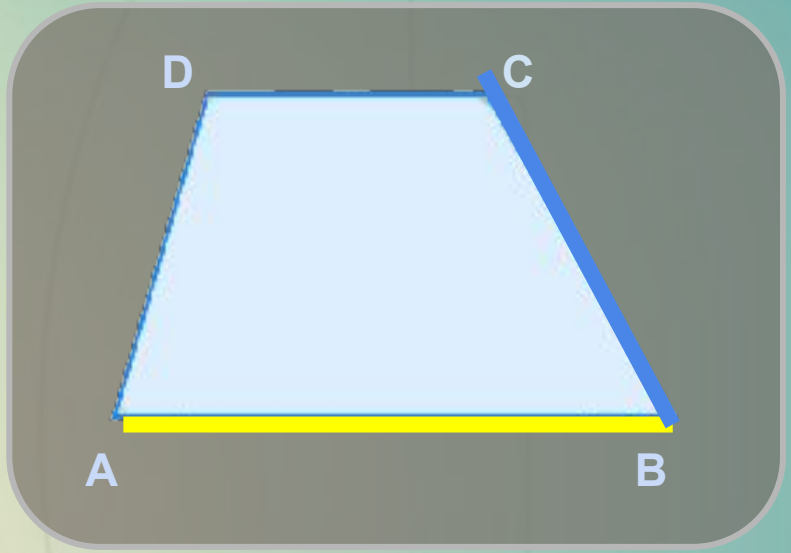


Sides of □ABCD

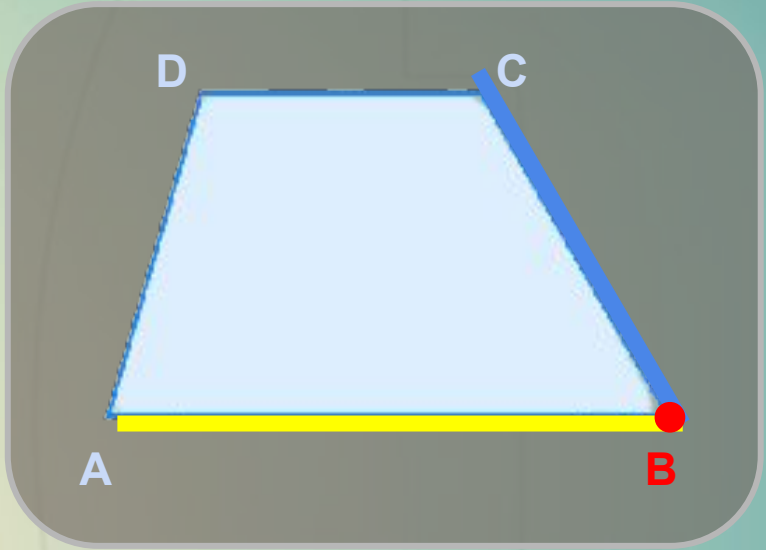
- $\overline{AB}$
- $\overline{BC}$
- $\overline{CD}$
- $\overline{DA}$

How many sides does a quadrilateral have? — 4

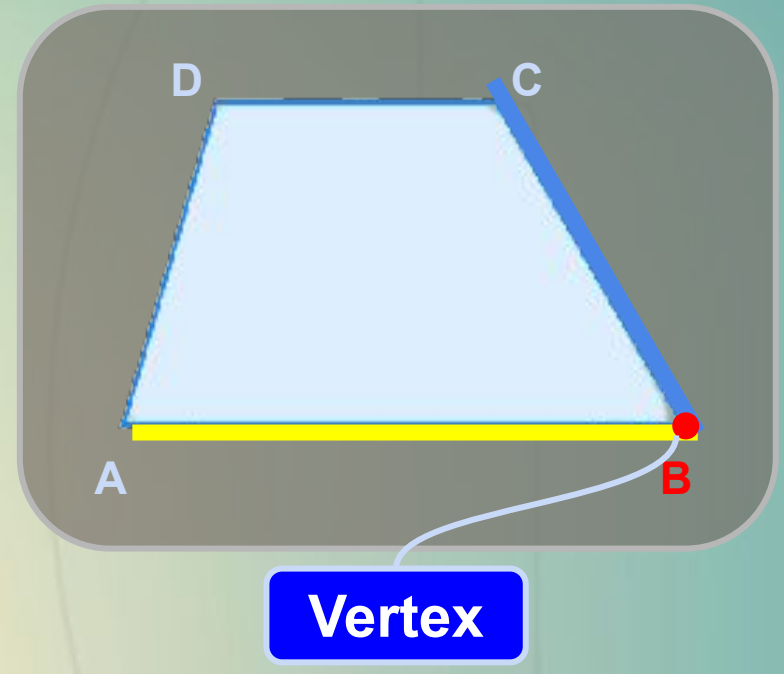
Parts of a Quadrilateral



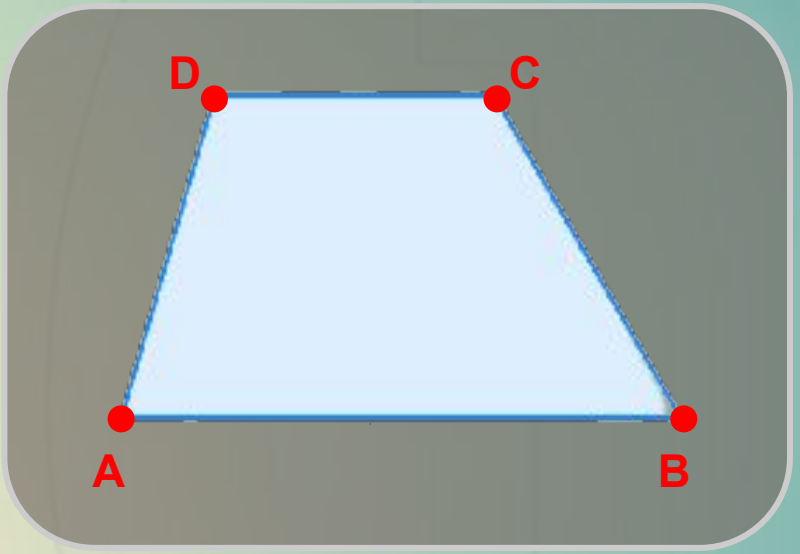
Parts of a Quadrilateral



Parts of a Quadrilateral



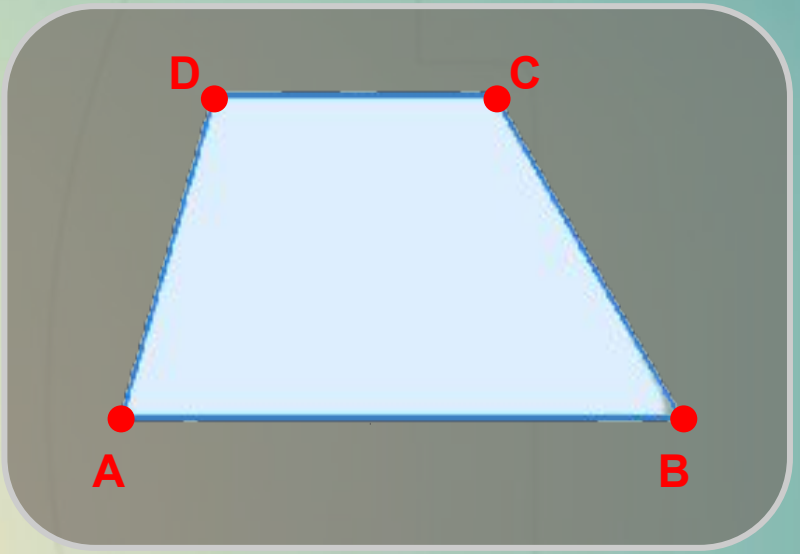
Parts of a Quadrilateral



Vertices of □ABCD

- A
- B
- C
- D

Parts of a Quadrilateral

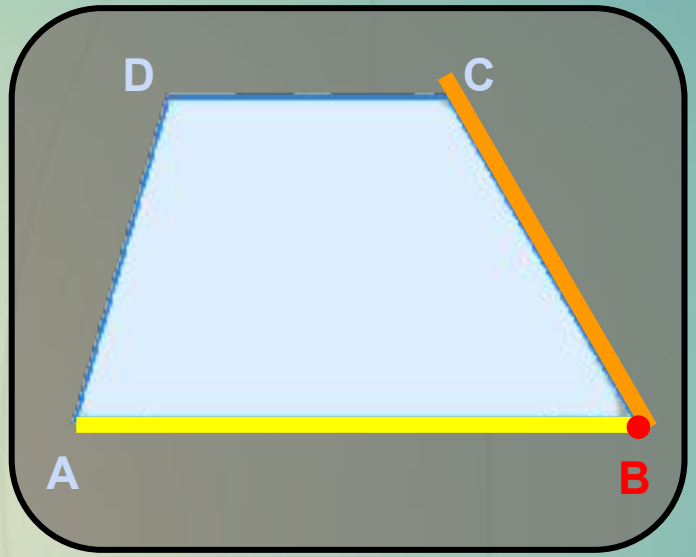


Vertices of □ABCD

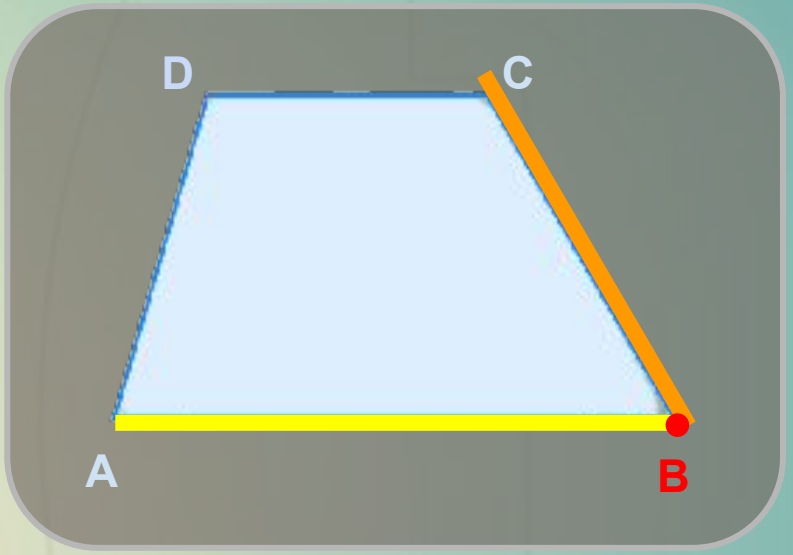
- A
- B
- C
- D

A quadrilateral has four vertices.

Parts of a Quadrilateral

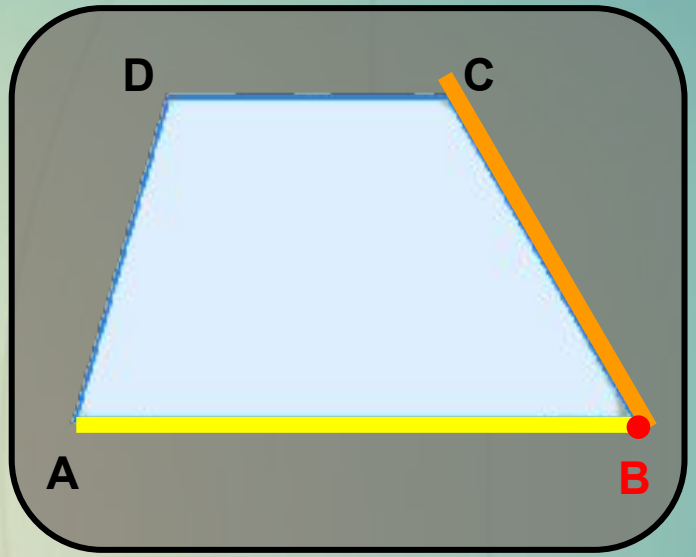


Parts of a Quadrilateral



AB and **BC**

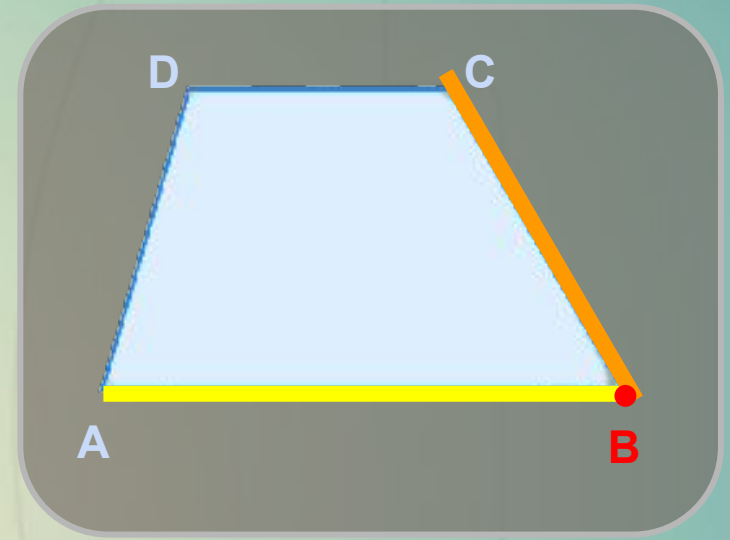
Parts of a Quadrilateral



Adjacent Sides of □ABCD

AB and **BC**

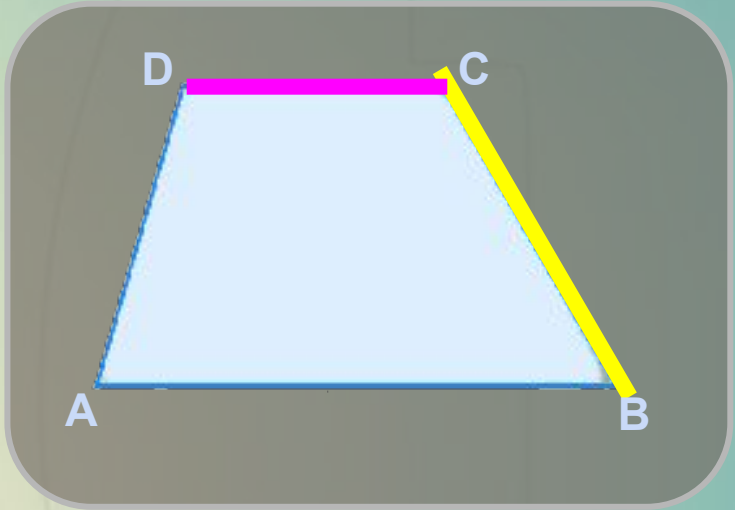
Parts of a Quadrilateral



Adjacent Sides/ Consecutive Sides of □ABCD

AB and **BC**

Parts of a Quadrilateral

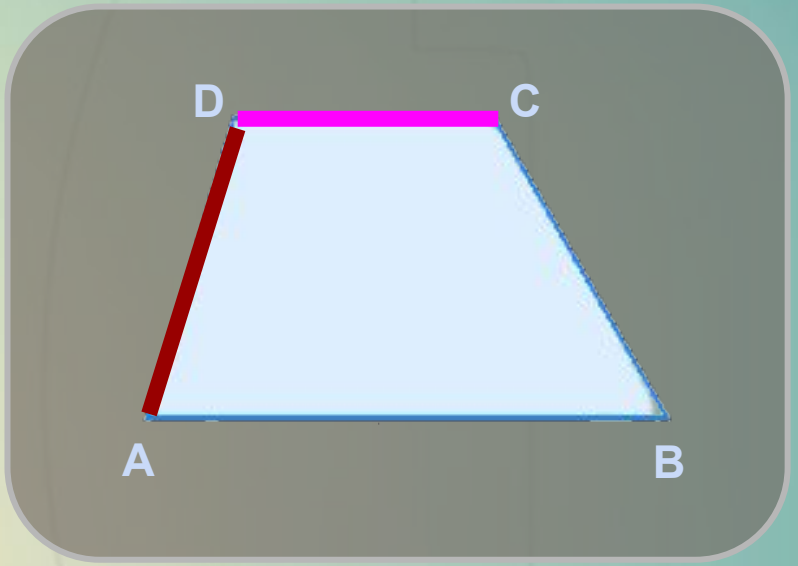


Adjacent Sides/ Consecutive Sides of □ABCD

AB and **BC**

BC and **CD**

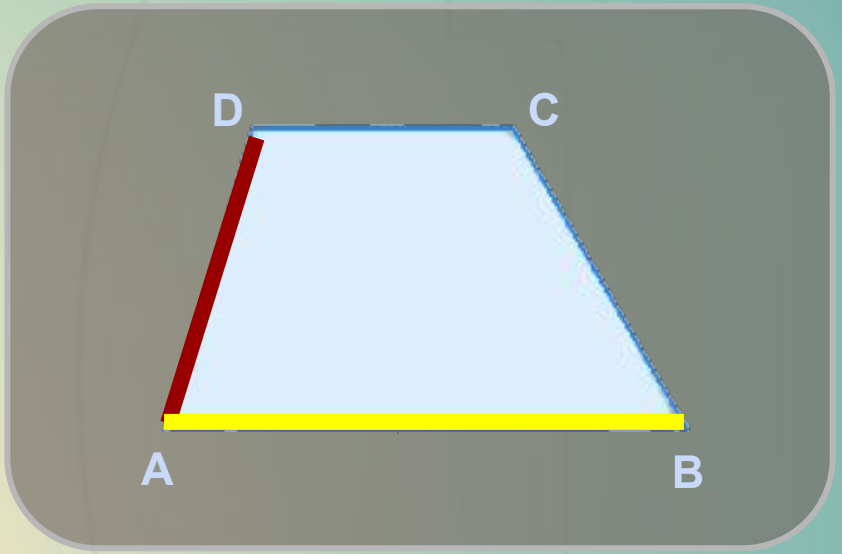
Parts of a Quadrilateral



Adjacent Sides/ Consecutive Sides of □ABCD

- **AB** and **BC**
- **BC** and **CD**
- **CD** and **DA**

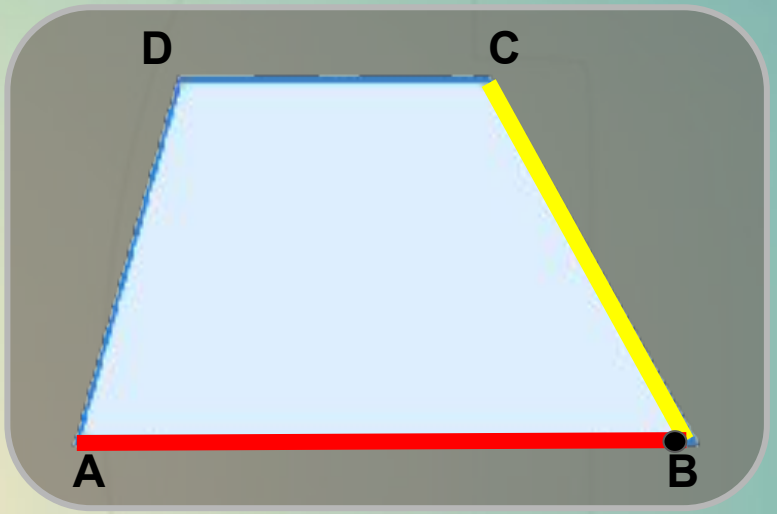
Parts of a Quadrilateral



Adjacent Sides/ Consecutive Sides of □ABCD

- **AB** and **BC**
- **BC** and **CD**
- **CD** and **DA**
- **DA** and **AB**

Parts of a Quadrilateral

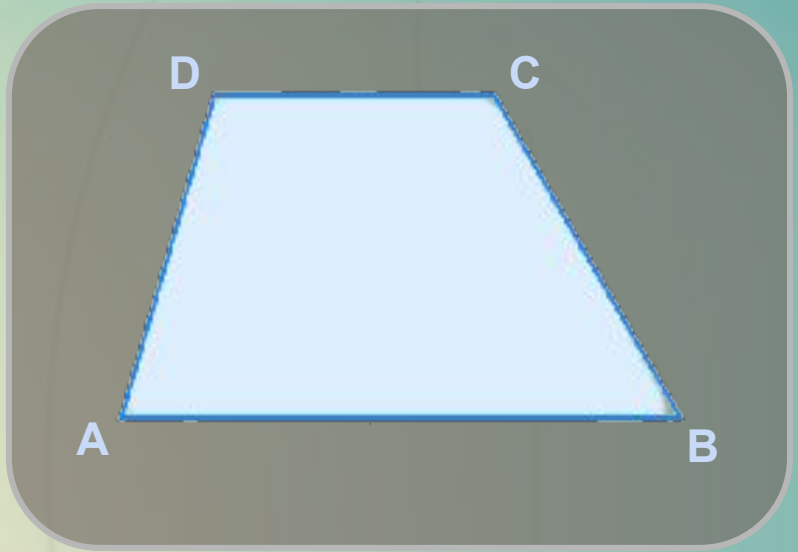


Adjacent Sides/ Consecutive Sides of □ABCD

- **AB** and **BC**
- **BC** and **CD**
- **CD** and **DA**
- **DA** and **AB**

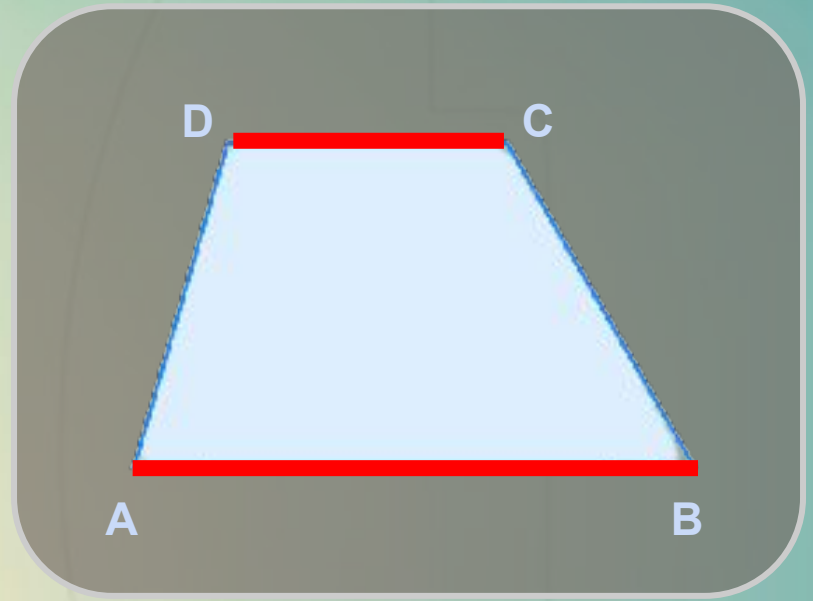
Two sides of a quadrilateral having a common vertex are called **adjacent sides or consecutive sides**.

Parts of a Quadrilateral



Pair of Sides with no common endpoint

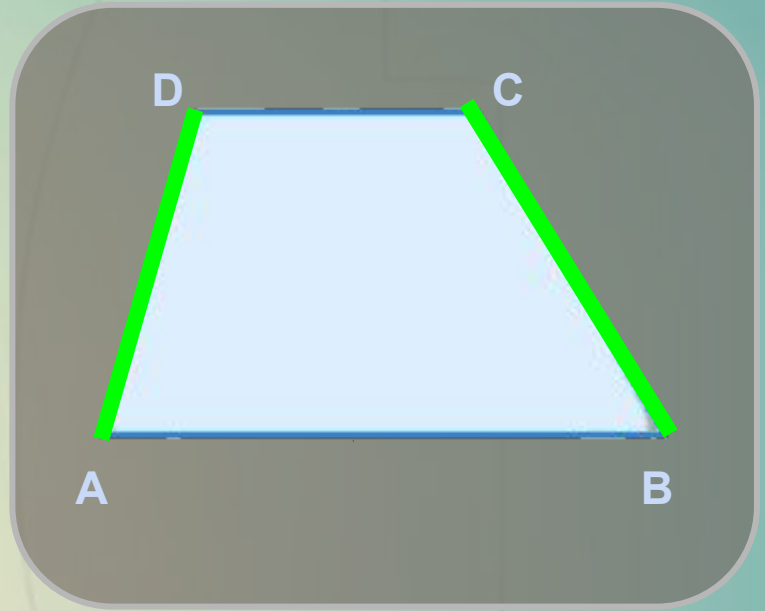
Parts of a Quadrilateral



Pair of Sides with no common endpoint of □ABCD

AB and **CD**

Parts of a Quadrilateral

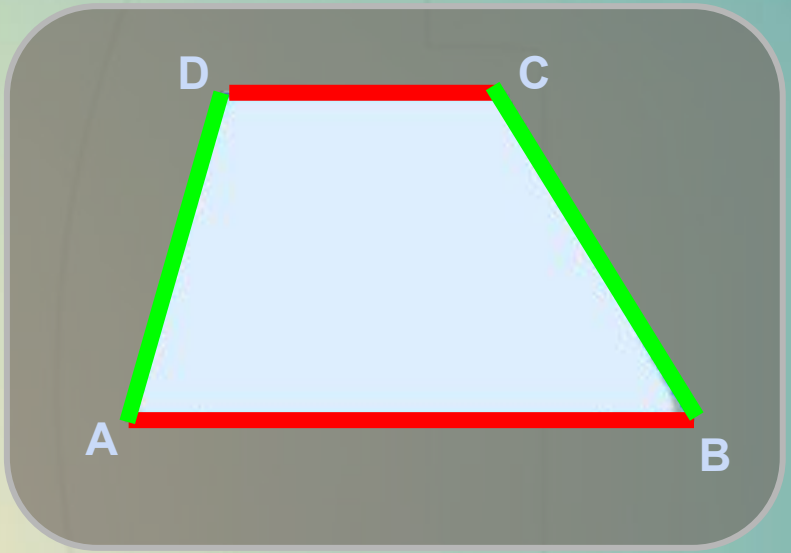


Pair of Sides with no common endpoint of □ABCD

AB and **CD**

AD and **BC**

Parts of a Quadrilateral

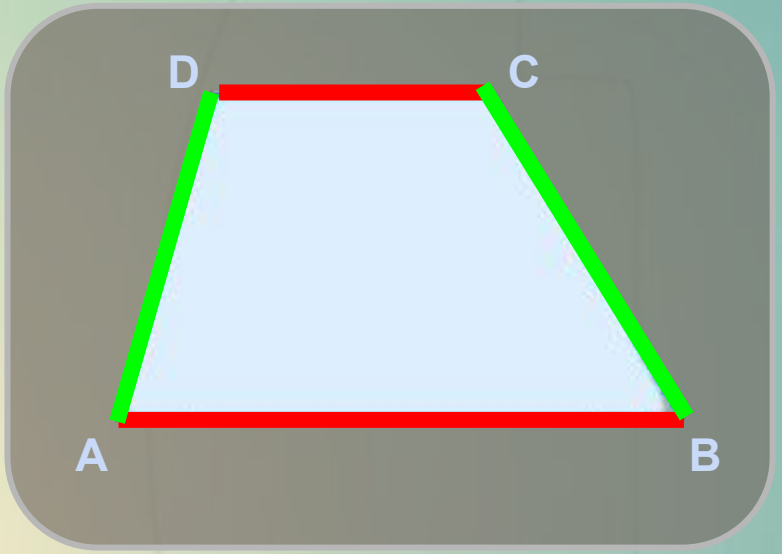


Opposite Sides of □ABCD

AB and **CD**

AD and **BC**

Parts of a Quadrilateral



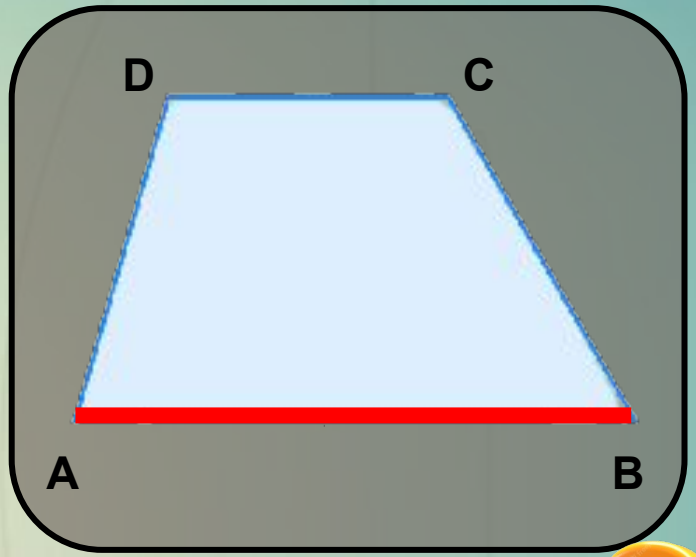
Opposite Sides of □ABCD

AB and **CD**

AD and **BC**

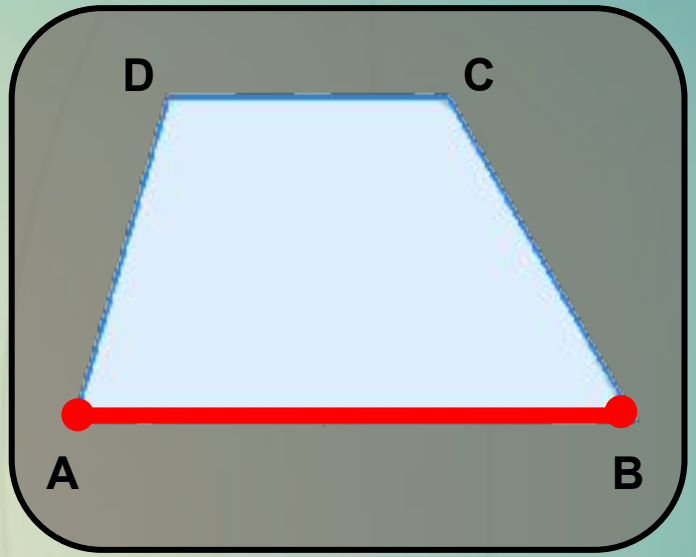
Any two sides of a quadrilateral having no common endpoints are known as **opposite sides.**

Parts of a Quadrilateral



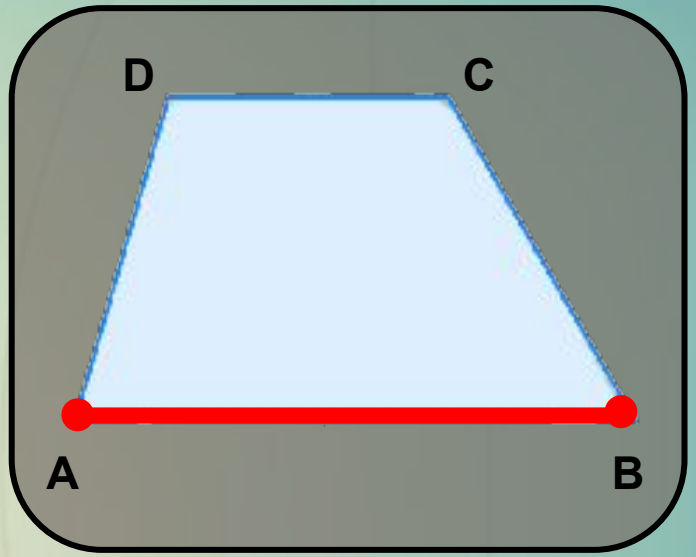
Endpoints of side $\overline{AB}$

Parts of Quadrilaterals



Endpoints of side $\overline{AB}$ — **A** and **B**

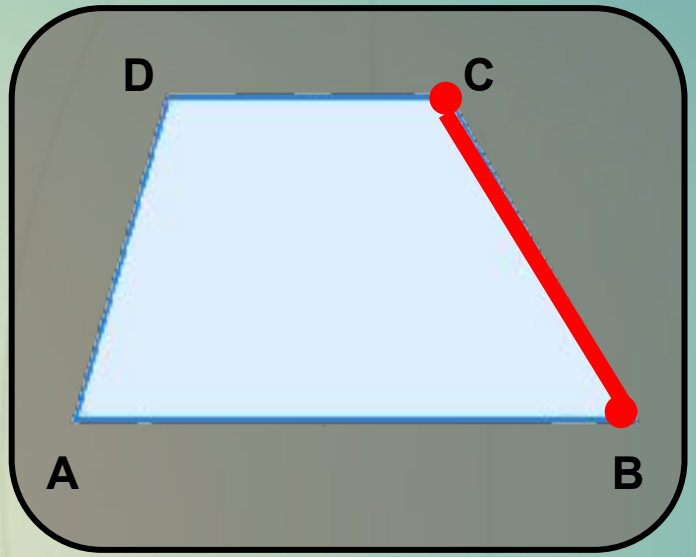
Parts of Quadrilaterals



Adjacent Vertices of □ABCD

A and **B**

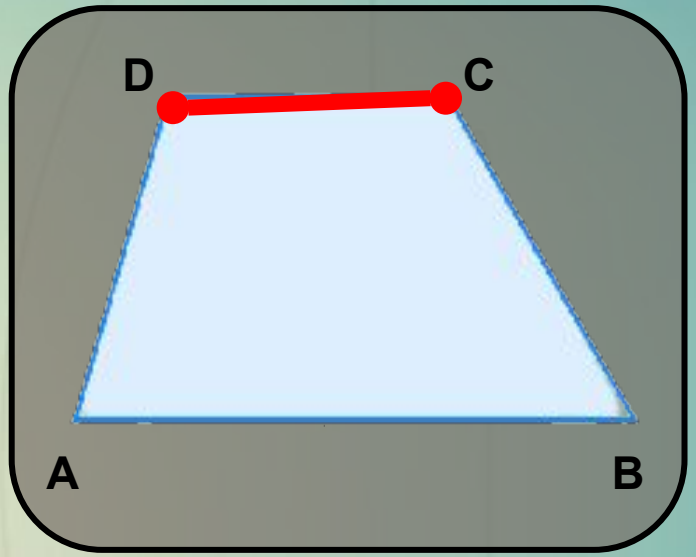
Parts of Quadrilaterals



Adjacent Vertices of □ABCD

- **A** and **B**
- **B** and **C**

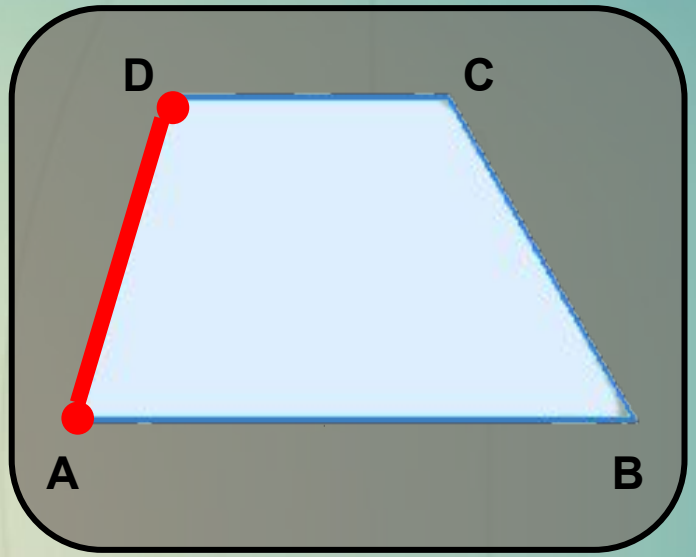
Parts of Quadrilaterals



Adjacent Vertices of □ABCD

- **A** and **B**
- **B** and **C**
- **C** and **D**

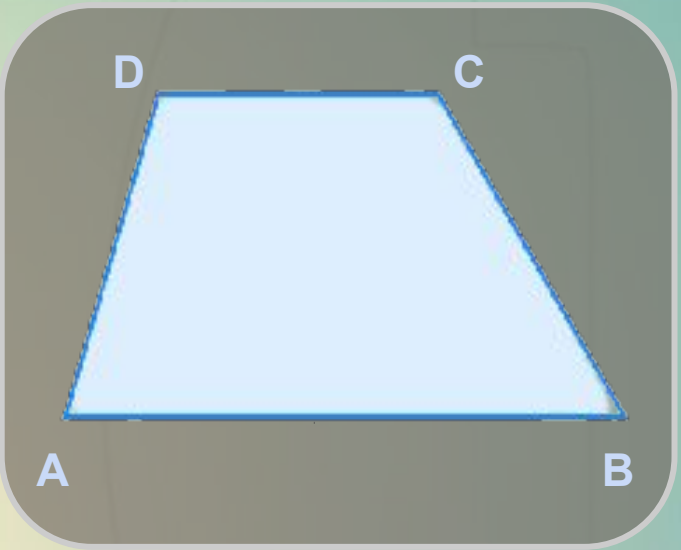
Parts of Quadrilaterals



Adjacent Vertices of □ABCD

- **A** and **B**
- **B** and **C**
- **C** and **D**
- **D** and **A**

Parts of Quadrilaterals

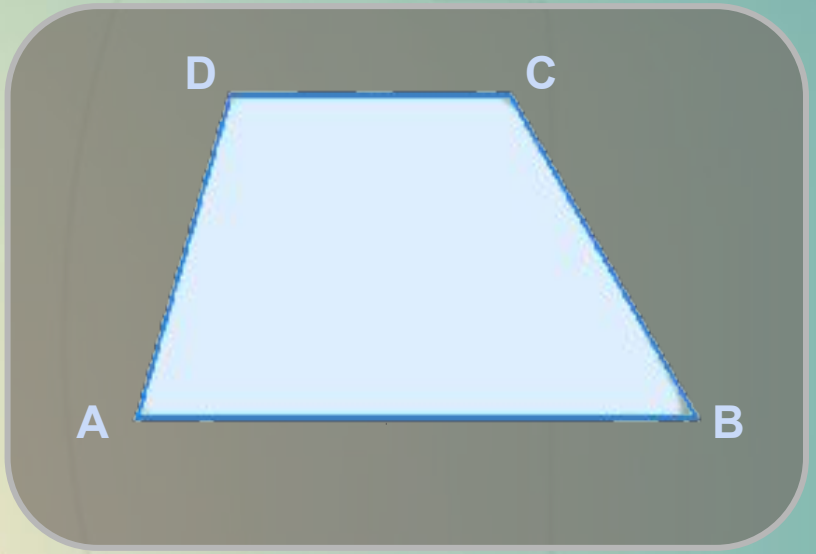


Adjacent Vertices of □ABCD

- **A** and **B**
- **B** and **C**
- **C** and **D**
- **D** and **A**

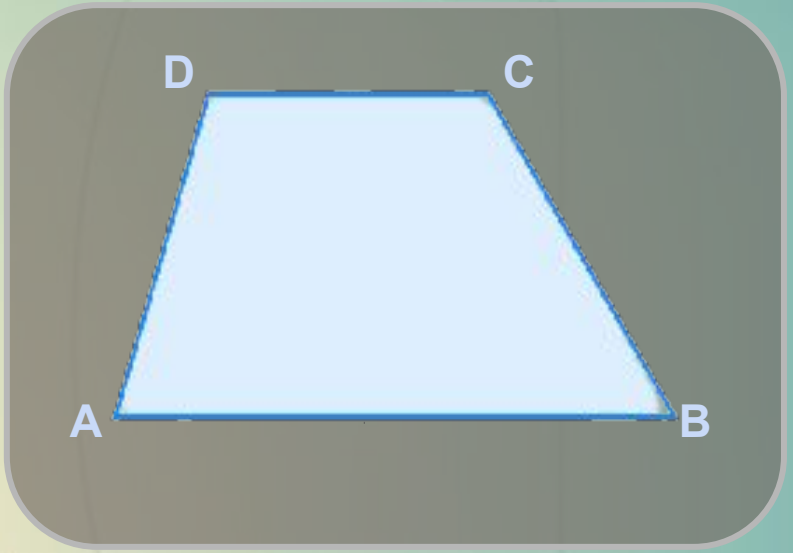
The endpoints of the same side of a quadrilateral are called the **adjacent vertices**.

Parts of a Quadrilateral



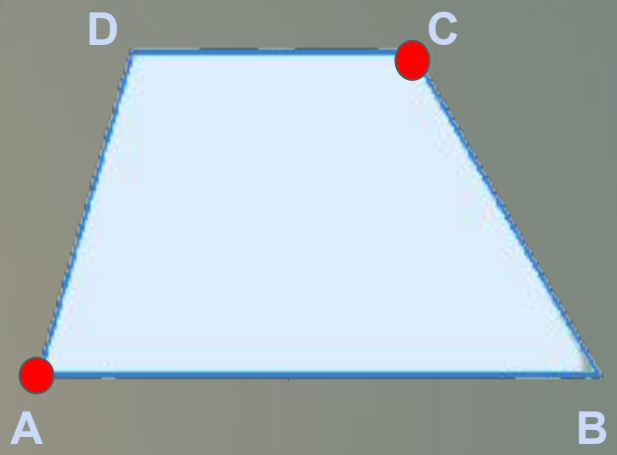
Pairs of vertices that are not adjacent to each other of □ABCD

Parts of a Quadrilateral



Pairs of vertices that are not adjacent to each other of □ABCD

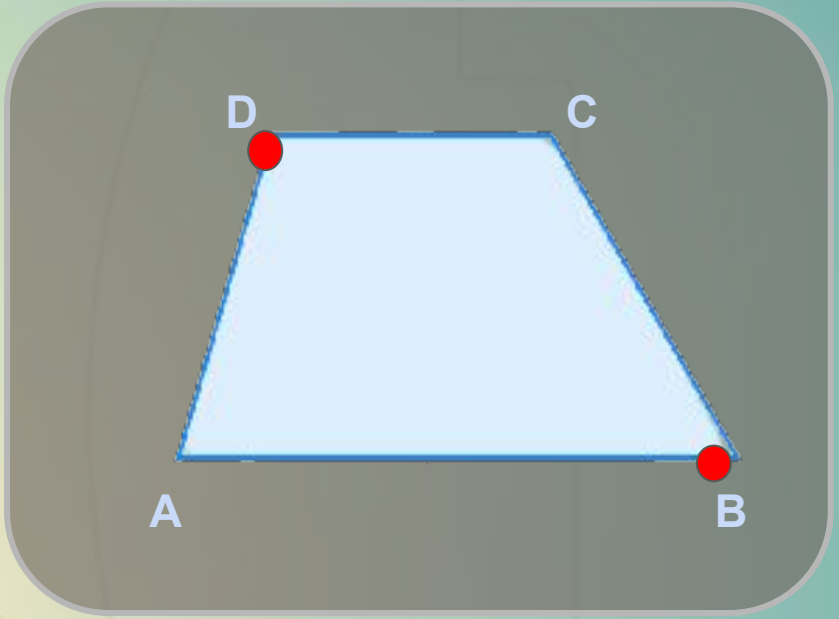
Parts of a Quadrilateral



Pairs of vertices that are not adjacent to each other of □ABCD

A and **C**

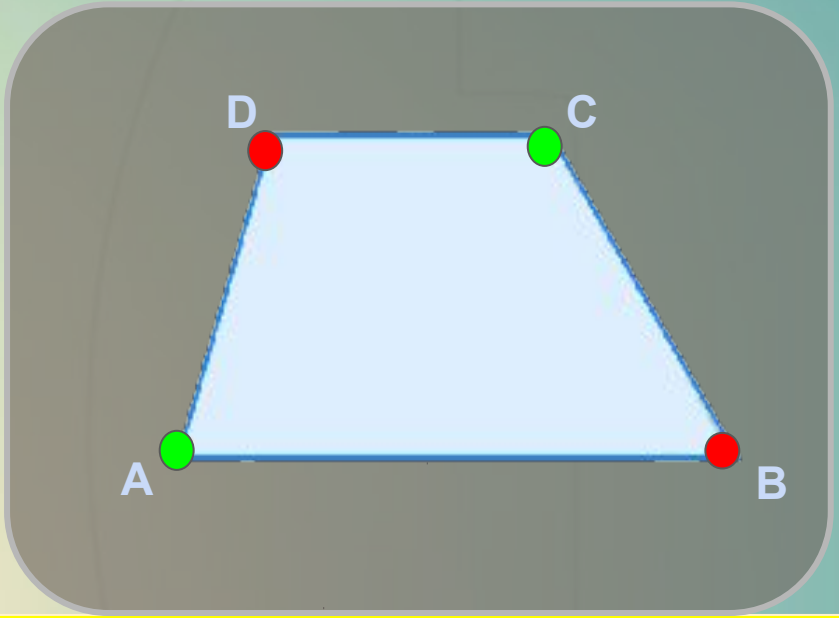
Parts of a Quadrilateral



Pairs of vertices that are not adjacent to each other of □ABCD

- **A** and **C**
- **B** and **D**

Parts of a Quadrilateral



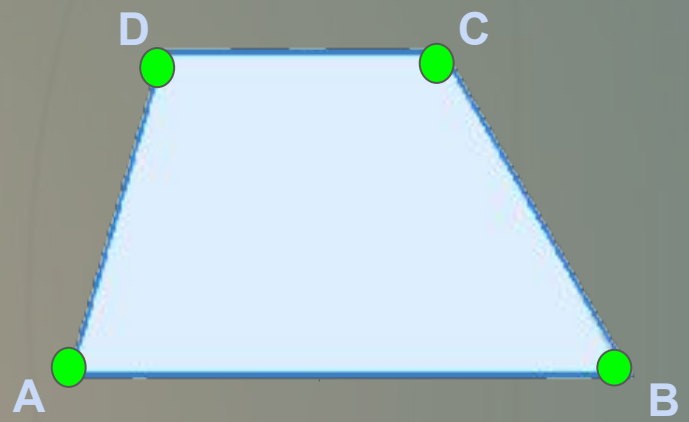
Pairs of vertices that are not adjacent to each other of □ABCD

A and **C**

B and **D**

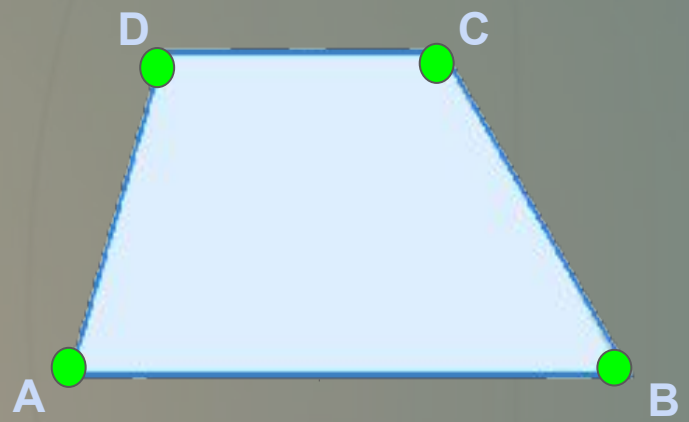
A pair of vertices in a quadrilateral that are not adjacent to each other are known as opposite vertices.

Parts of a Quadrilateral



4 Angles are formed at 4 vertices

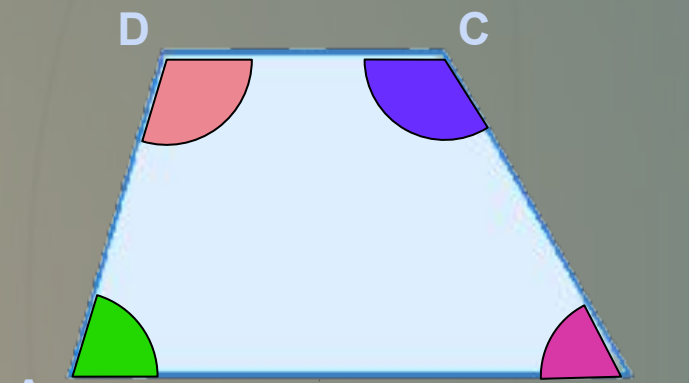
Parts of a Quadrilateral



Angles of the □ABCD

?

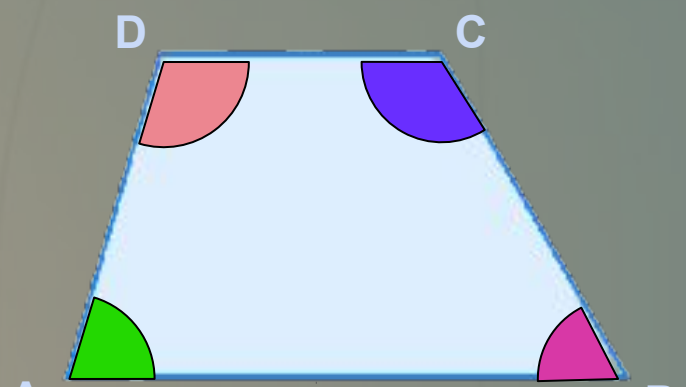
Parts of a Quadrilateral



Angles of the □ABCD

- ∠A
- ∠B
- ∠C
- ∠D

Parts of a Quadrilateral

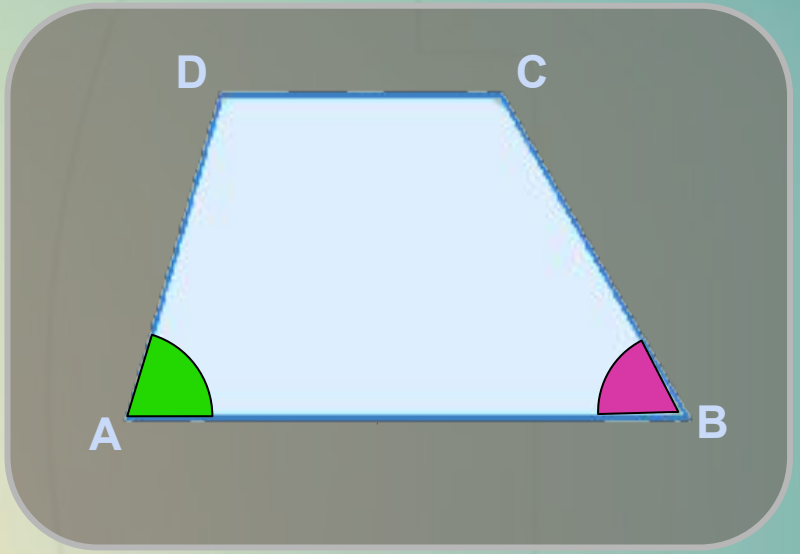


Angles of the □ABCD

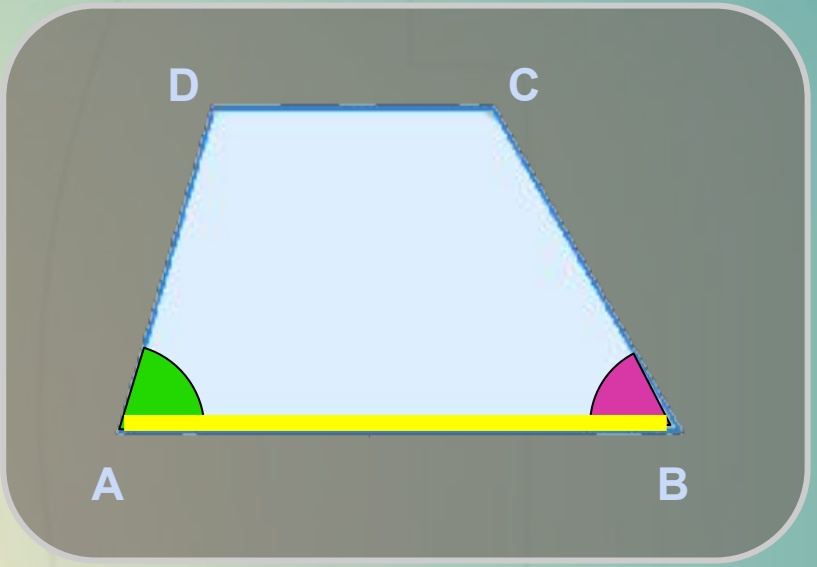
- ∠A
- ∠B
- ∠C
- ∠D

A quadrilateral has 4 angles.

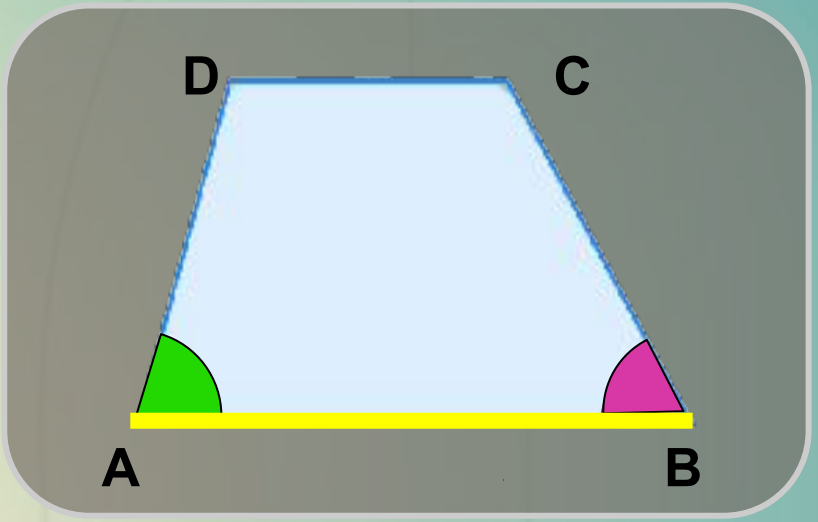
Parts of a Quadrilateral



Parts of a Quadrilateral

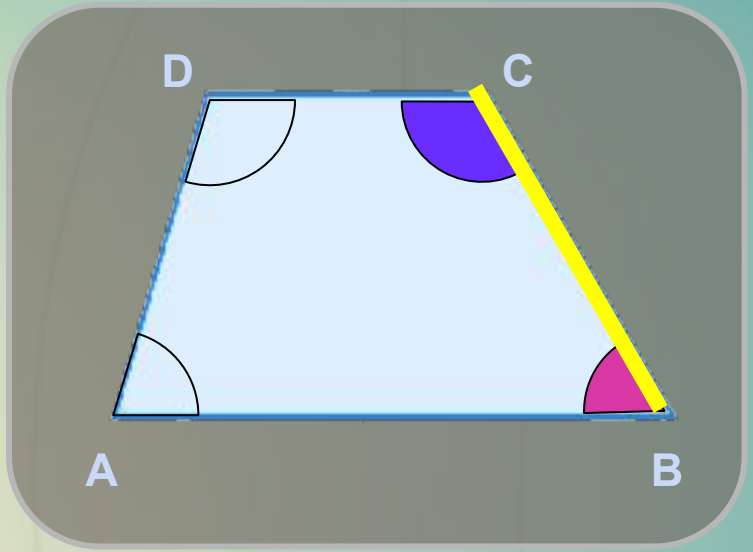


Parts of a Quadrilateral



A pair of angles of a quadrilateral which share a common arm are called **adjacent angles or consecutive angles.**

Parts of a Quadrilaterals

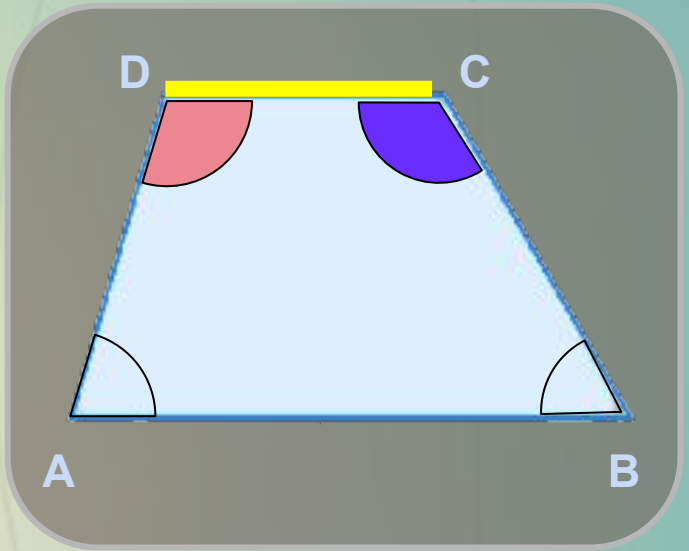


Adjacent Angles/ Consecutive Angles of the □ABCD

∠A and ∠B

∠B and ∠C

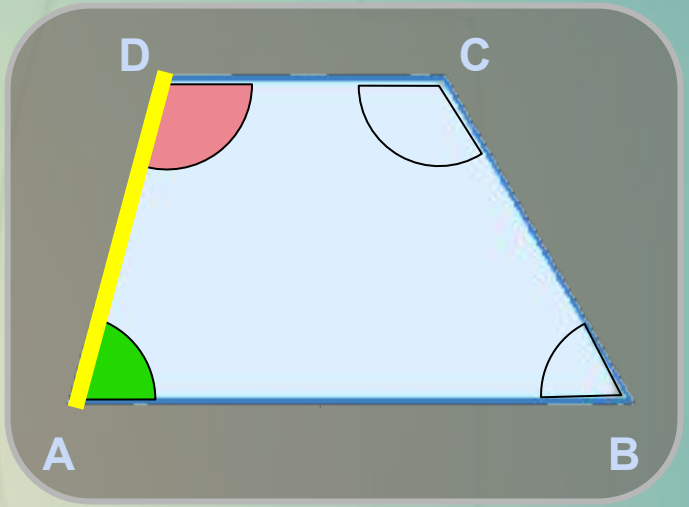
Parts of Quadrilaterals



Adjacent Angles/ Consecutive Angles of the □ABCD

- ∠A and ∠B
- ∠B and ∠C
- ∠C and ∠D

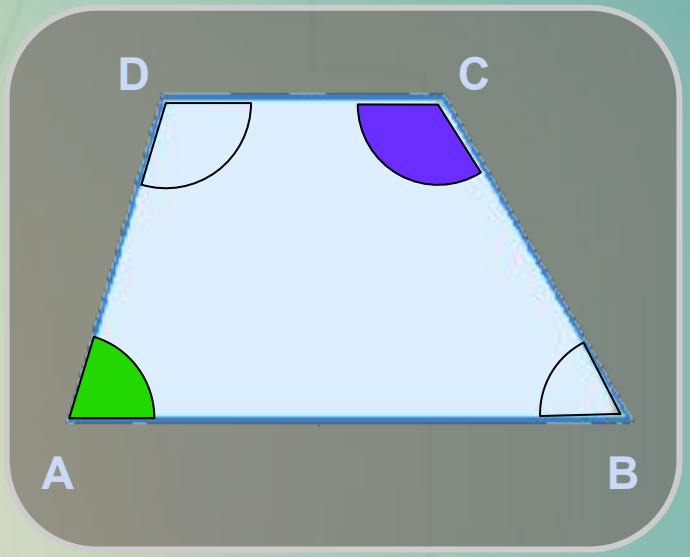
Parts of a Quadrilateral



Adjacent Angles/ Consecutive Angles of the □ABCD

- ∠A and ∠B
- ∠B and ∠C
- ∠C and ∠D
- ∠D and ∠A

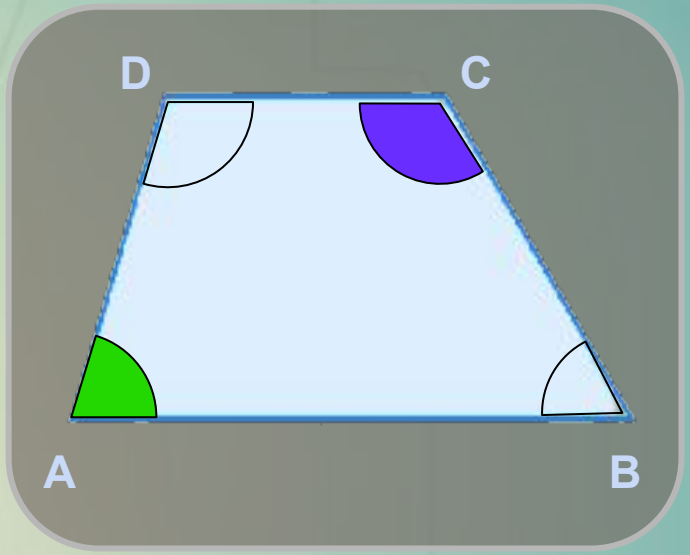
Parts of a Quadrilateral



Is there a common arm

∠A and ∠C

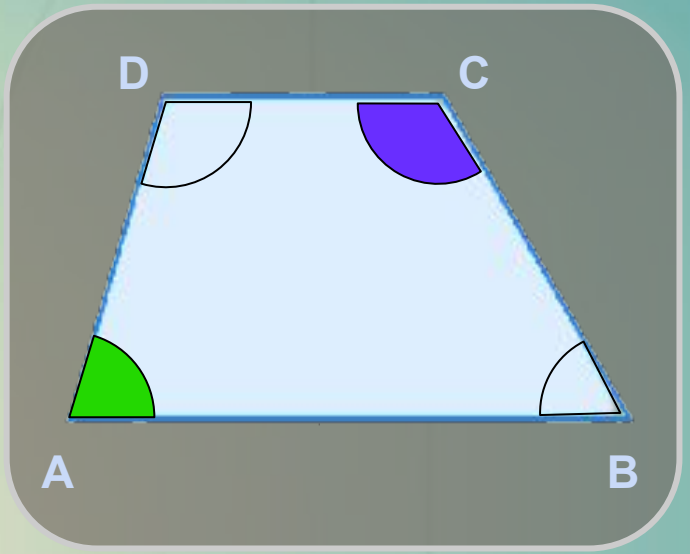
Parts of a Quadrilaterals



Is there a common arm

∠A and ∠C

Parts of a Quadrilaterals

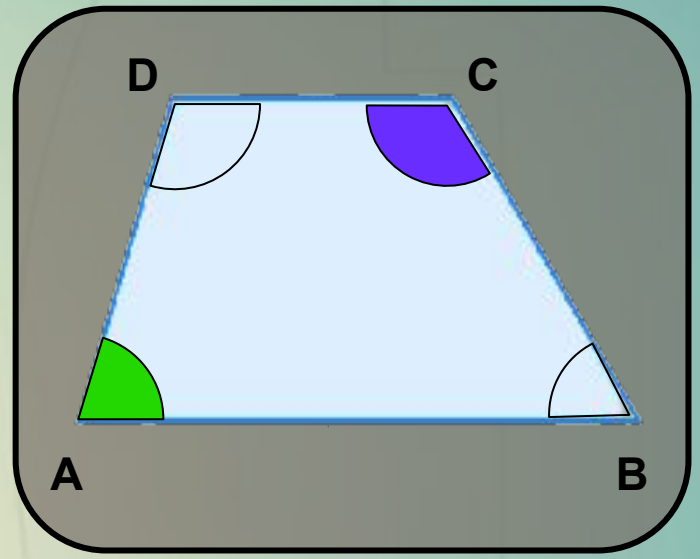


Is there a common arm ✗

∠A and ∠C

A pair of angles of a quadrilateral having no common arm are called **opposite angles.**

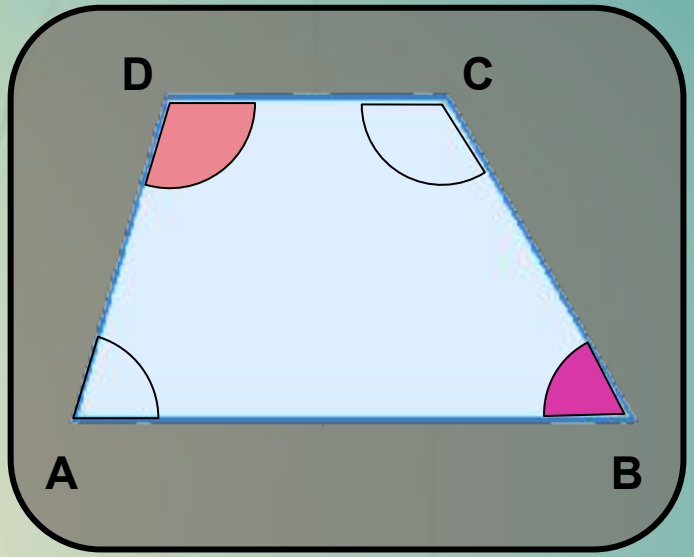
Parts of a Quadrilateral



Opposite Angles of □ABCD

∠A and ∠C

Parts of a Quadrilateral

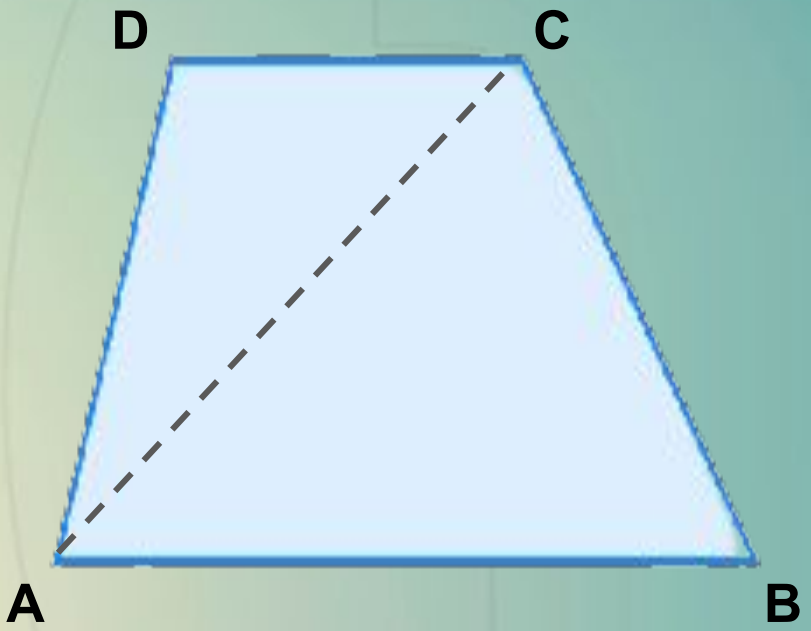


Opposite Angles of □ABCD

∠A and ∠C

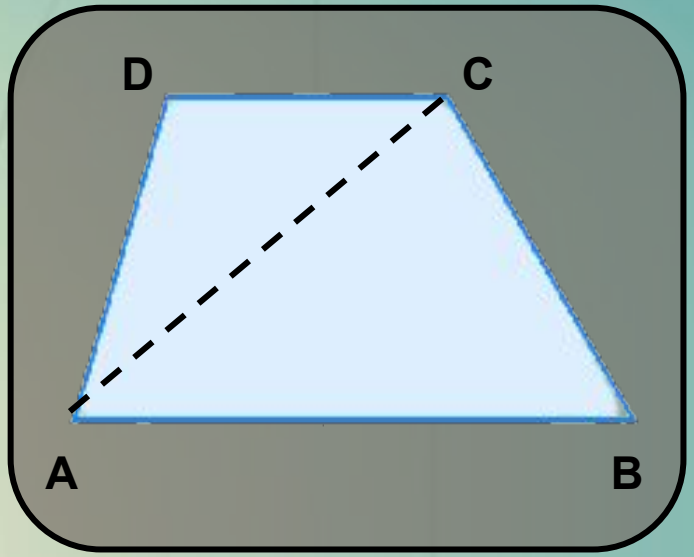
∠B and ∠D

Parts of a Quadrilateral



$\overline{AC}$

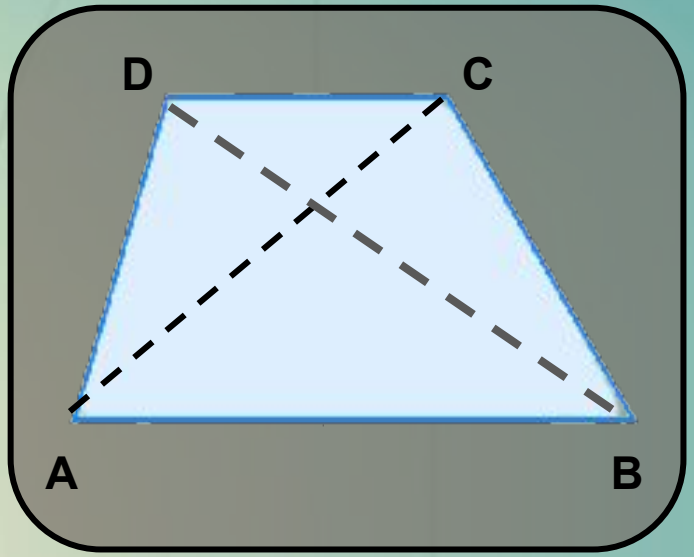
Parts of a Quadrilateral



Diagonal of □ABCD

$\overline{AC}$

Parts of a Quadrilateral

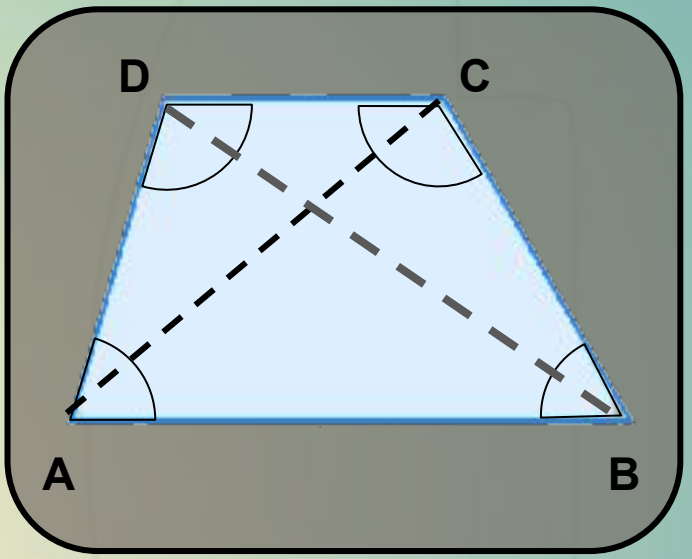


Diagonal of □ABCD

$\overline{AC}$

$\overline{BD}$

Parts of a Quadrilateral



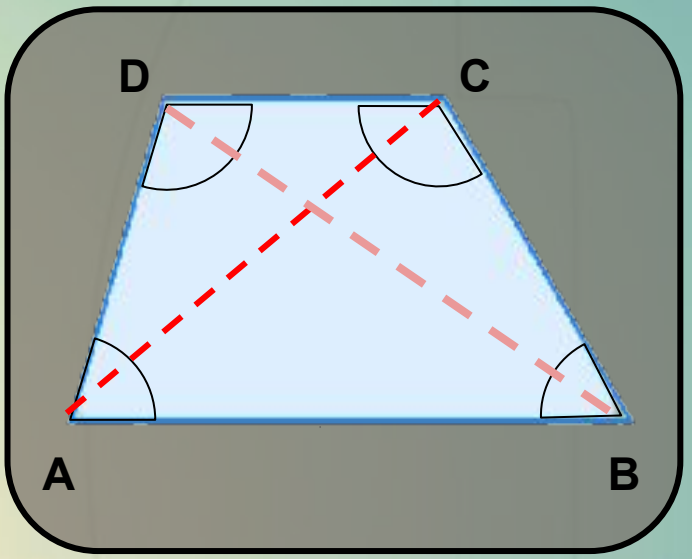
Diagonal of □ABCD

$\overline{AC}$

$\overline{BD}$

A **diagonal** is nothing but a line segment connecting two opposite vertices of a quadrilateral.

Parts of a Quadrilateral



Diagonal of □ABCD

$\overline{AC}$

$\overline{BD}$

A quadrilateral has two diagonals.

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Cowboy Shot

SUMMARY

A quadrilateral is a simple closed figure bounded by four line segments in a plane.

A quadrilateral has four sides, four vertices, and four angles and two diagonals.

Two sides of a quadrilateral having a common vertex are called adjacent sides or consecutive sides.

SUMMARY

Two sides of a quadrilateral having no common endpoint are known as opposite sides.

The endpoints of the same side of a quadrilateral are called the adjacent vertices.

A pair of vertices that are not adjacent to each other are known as opposite vertices.

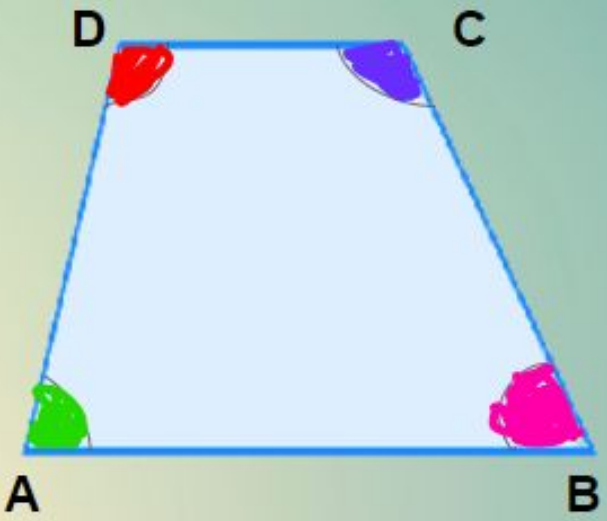
SUMMARY

A pair of angles of a quadrilateral which share a common arm are called adjacent angles or consecutive angles.

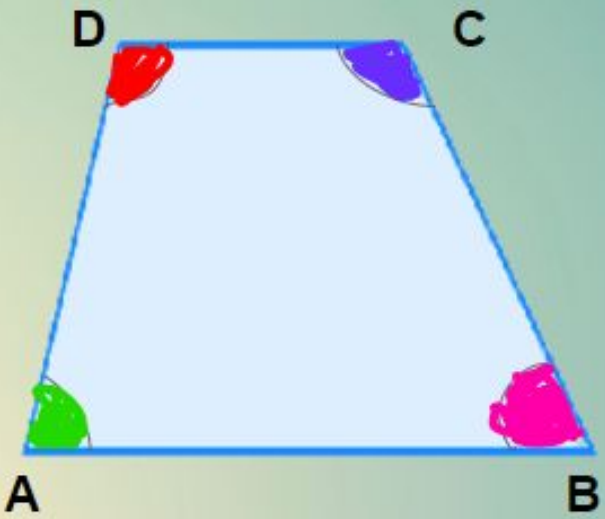
A pair of angles of a quadrilateral having no common arm are called opposite angles.

A diagonal is a line segment connecting two opposite vertices of a quadrilateral.

Parts of Quadrilaterals



Parts of Quadrilaterals



$$\angle A + \angle B + \angle C + \angle D = ?$$