SUBJECT – MATHEMATICS

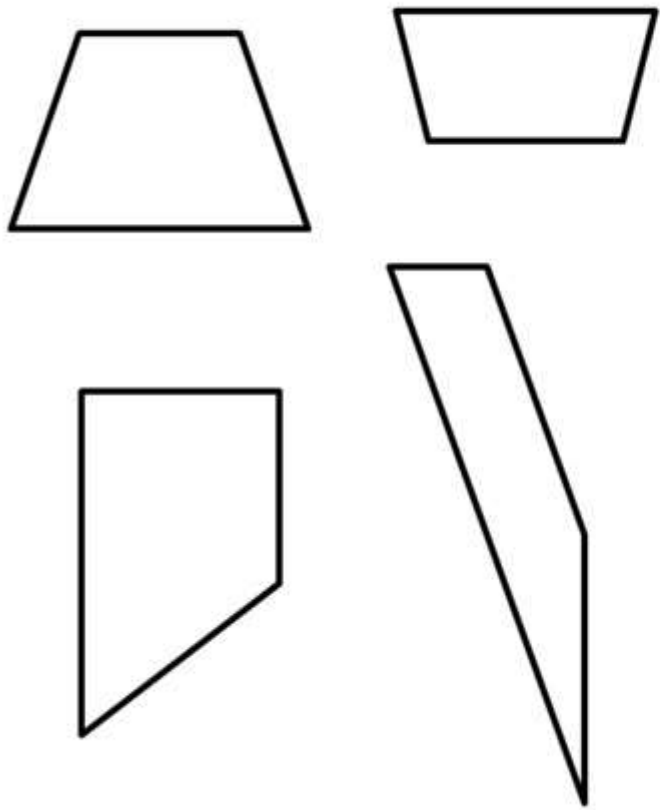
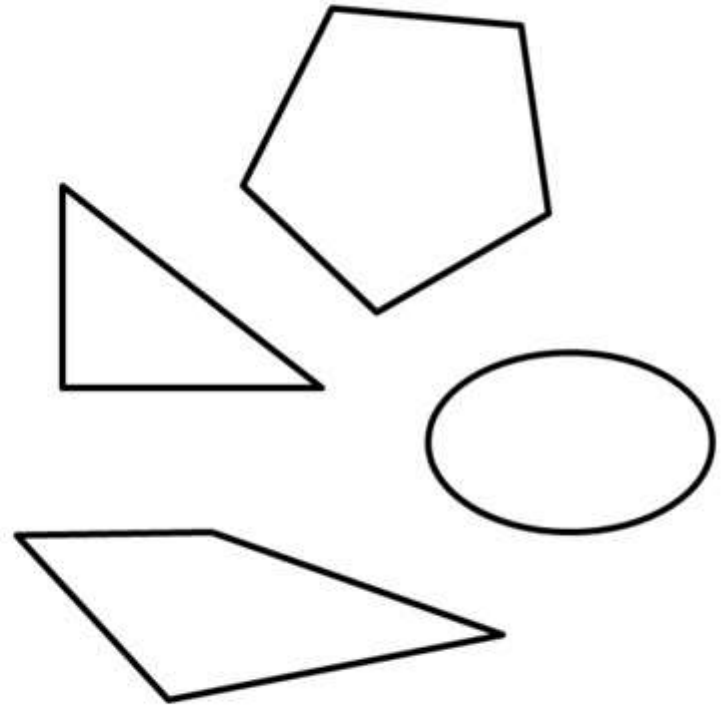
GRADE – 6

Chapter 8 – Lesson 3

Area of Trapezoids

Vocabulary:

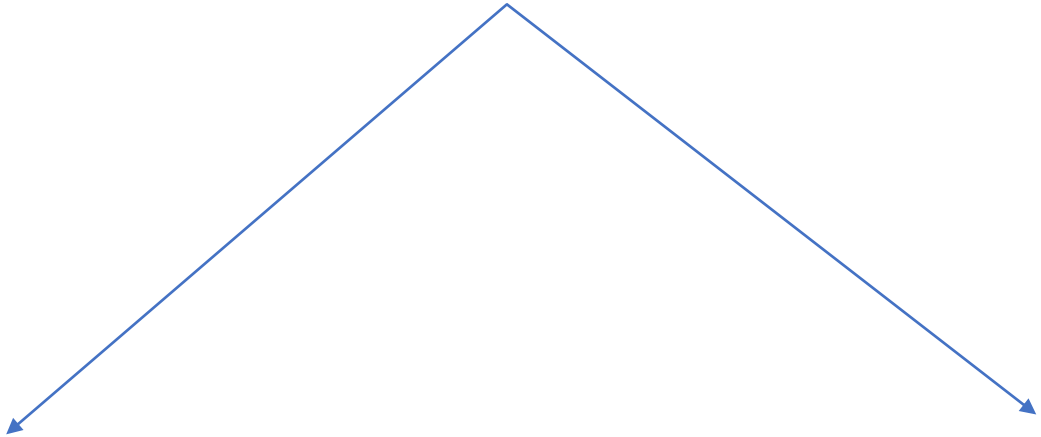
- **Area**
- **Trapezoids** A quadrilateral with at least one pair of parallel sides

These are trapezoids:	These are not trapezoids:
	

Objective of Session

To find the area of Trapezoids

Area

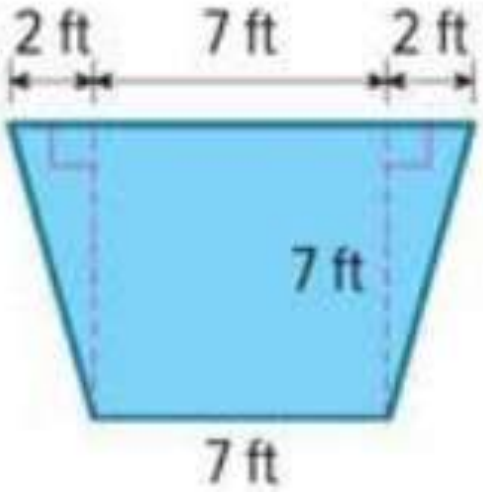


Split the figure
or Decompose

Formula

Chapter 8-L3 - Area of Trapezoids

Decompose each trapezoid to find its area.



Chapter 8-L3 - Area of Trapezoids

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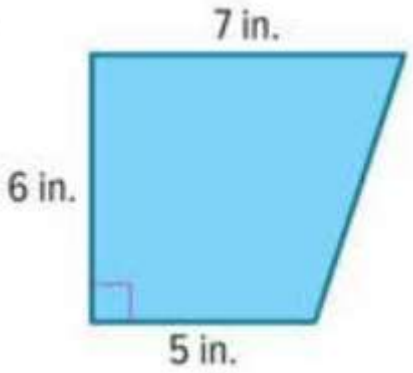
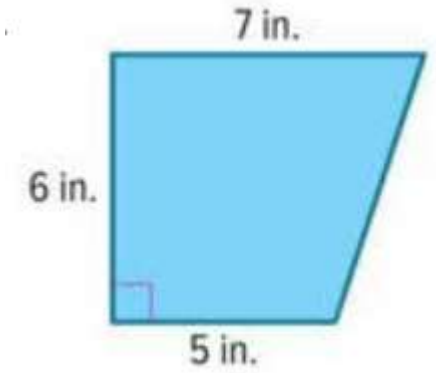
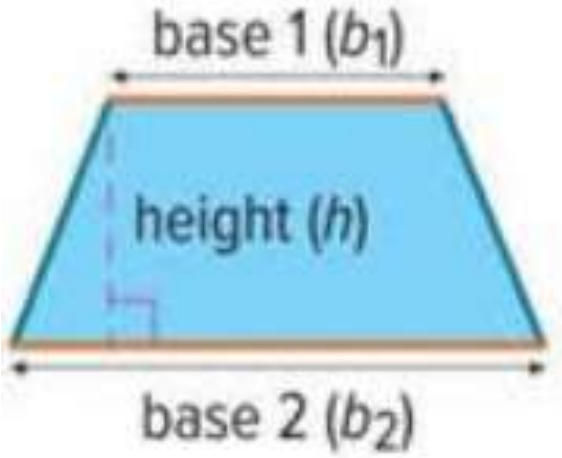




Chapter 8-L3 - Area of Trapezoids

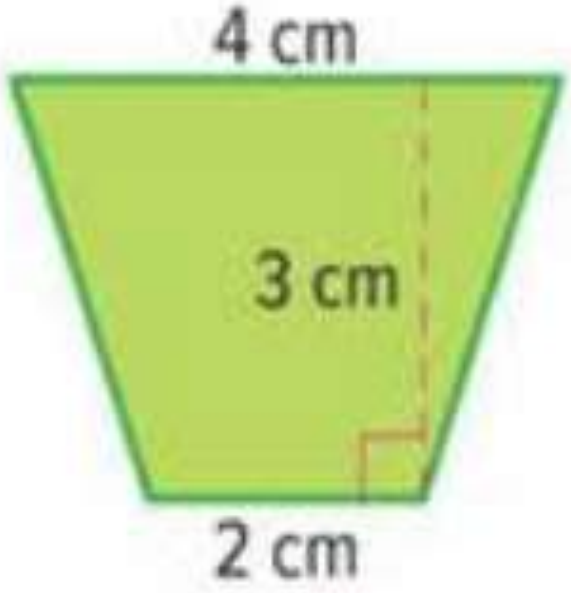
Helpful Tips

Words	Symbols
The area of a trapezoid is one half the product of the height, h, and the sum of its bases, b_1 and b_2	$A = \frac{1}{2}h(b_1 + b_2)$



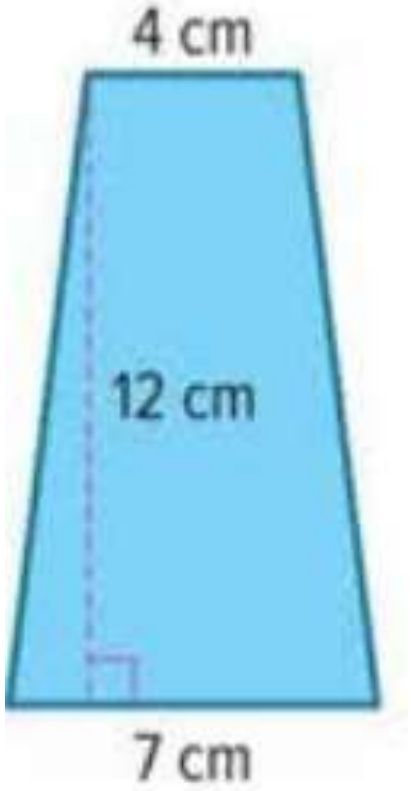
Chapter 8-L3 - Area of Trapezoids

Find the area of the trapezoid.



Chapter 8-L3 - Area of Trapezoids

Find the area of each trapezoid.



Chapter 8-L3 - Area of Trapezoids

Find the area of each trapezoid.

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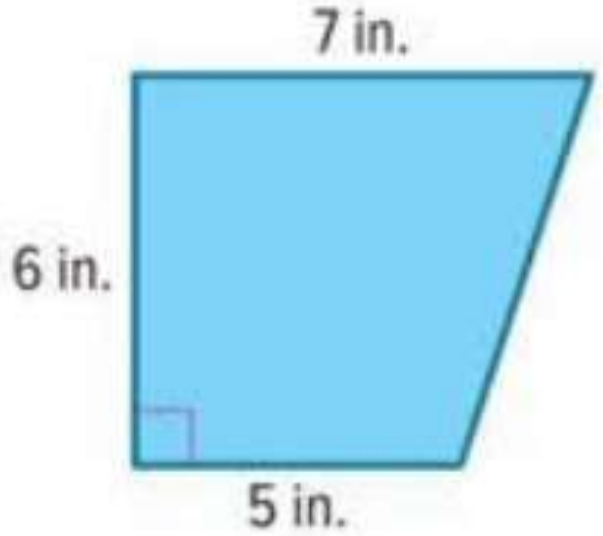


How to find the missing dimension of trapezoid

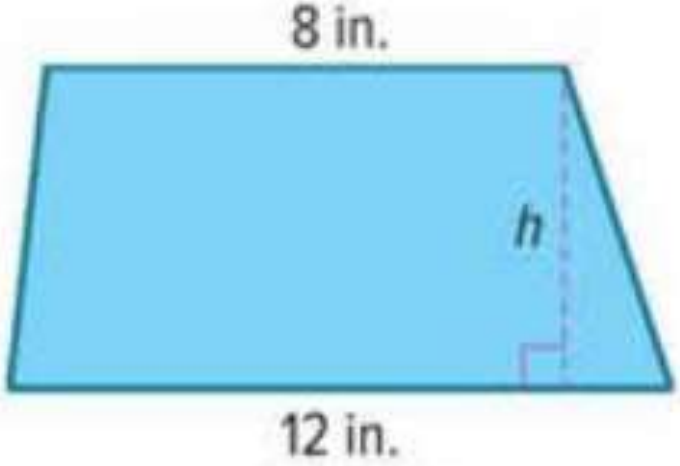
$$\text{Height} = \frac{2\ x\ Area}{(b1+b2)}$$

$$\text{Base 1 (b1)} = \frac{2\ x\ Area}{h} - b2$$

$$\text{Base 2 (b2)} = \frac{2\ x\ Area}{h} - b1$$

Chapter 8-L3 - Area of Trapezoids

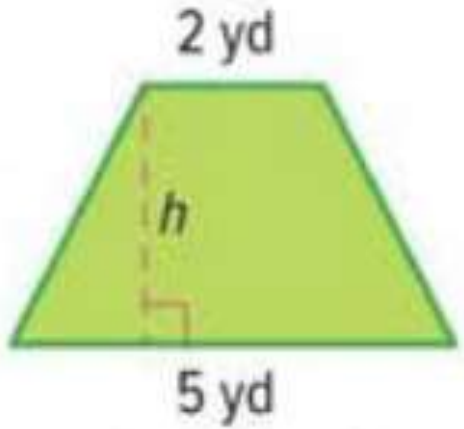
Find the missing dimension of the trapezoid.



$A = 40 \text{ in}^2$

Chapter 8-L3 - Area of Trapezoids

Find the missing dimension of the trapezoid.



$A = 21\ \text{yd}^2$


Thank
you!!