

Name: Class:

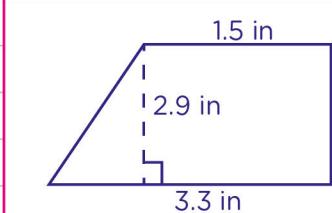
Area of parallelograms and trapezoids.



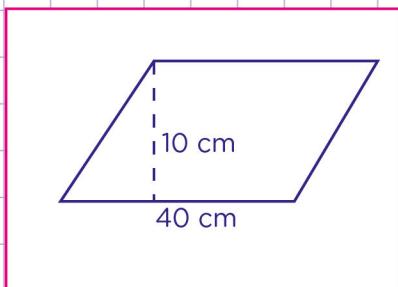
$$\text{Area of parallelogram} = \text{Base} \times \text{Height}$$

$$\text{Area of trapezoid} = \frac{1}{2} (a + b) \times \text{height}$$

1. Find the area of the trapezoid.



2. Find the area of the parallelogram.



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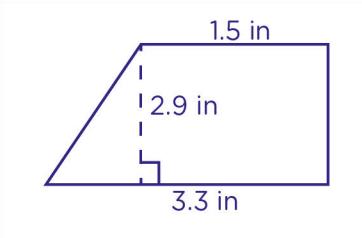
Area of parallelograms and trapezoids.



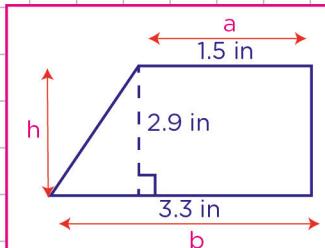
$$\text{Area of parallelogram} = \text{Base} \times \text{Height}$$

$$\text{Area of trapezoid} = \frac{1}{2} (a + b) \times \text{height}$$

1. Find the area of the trapezoid.



Following the formula of trapezoid above, we first of all find a, b, and height (h) of the trapezoid;



$$\begin{aligned} a &= 1.5 \text{ in} \\ b &= 3.3 \text{ in} \\ h &= 2.9 \text{ in} \end{aligned}$$

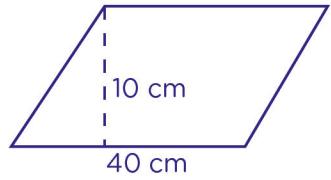
Secondly, we substitute these numbers in the formula.

$$\begin{aligned} &\frac{1}{2} ((1.5 \text{ in} + 3.3 \text{ in}) \times 2.9 \text{ in}) \\ &\frac{1}{2} (4.8 \text{ in} \times 2.9 \text{ in}) \end{aligned}$$

$$\frac{13.92}{2} = 6.96 \text{ square inches}$$

The area is 6.96 square inches.

2. Find the area of the parallelogram.



$$\text{Area of parallelogram} = \text{Base} \times \text{Height}$$

$$\text{Base} = 40 \text{ cm}$$

$$\text{Height} = 10 \text{ cm}$$

Substitute these numbers in the formula.

$$\begin{aligned} \text{Area of parallelogram} &= 40 \text{ cm} \times 10 \text{ cm} \\ &= 400 \text{ square centimeters} \end{aligned}$$

Therefore, the area is 400 square centimeters

