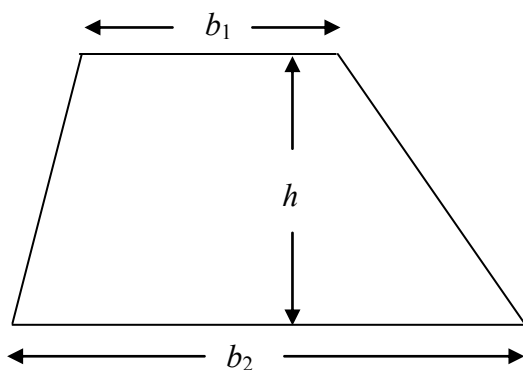
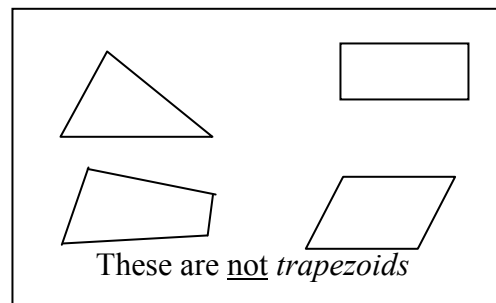
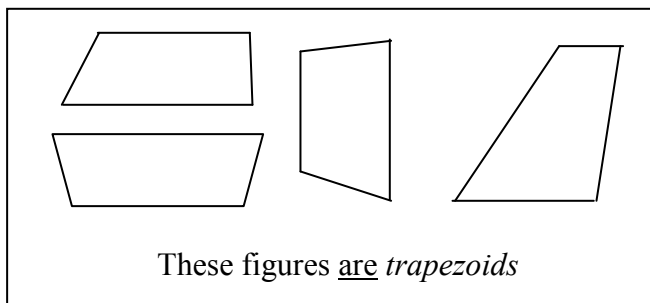


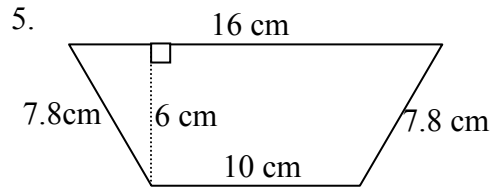
A **trapezoid** is a four-sided polygon with *exactly one pair of parallel sides*.



1. Draw a second trapezoid next to the one above as shown in the video. The two trapezoids together should form a *parallelogram*. Label the base and height of the parallelogram with the appropriate symbols on the diagram.
2. Find the area of the parallelogram in terms of b_1 , b_2 , and h .
3. Is the area of the parallelogram the same as the original trapezoid?
4. Give a formula for finding the area of a trapezoid in terms of b_1 , b_2 , and h , based on this exploration.

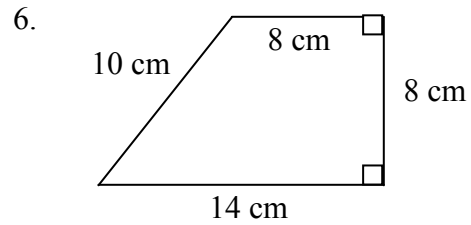


In problems 5-8, find the perimeter and area of the trapezoids to the nearest tenth. Show all work.



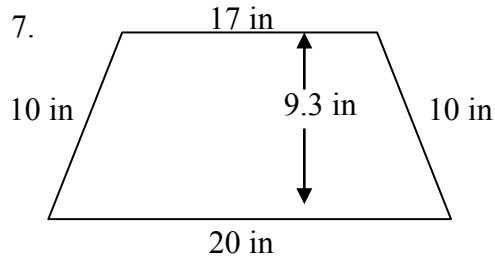
P=

A=



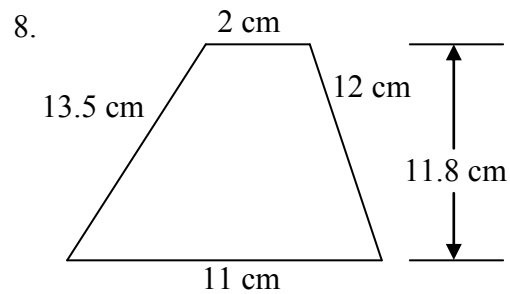
P=

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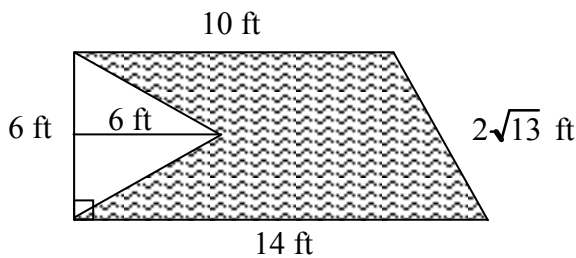
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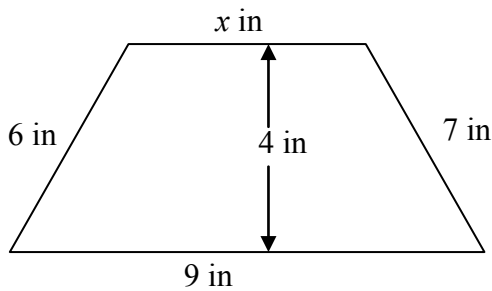
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9. Find the shaded area.



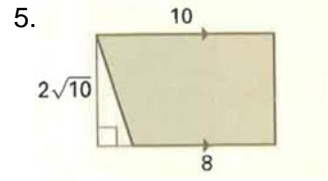
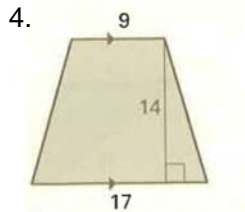
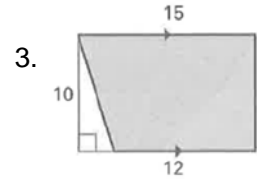
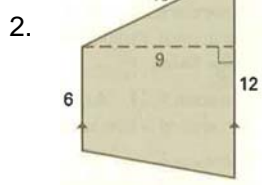
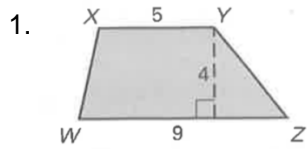
10. Find x so that the numerical value of the area will equal the numerical value of the perimeter.
(You will need to write an equation and solve for x .)



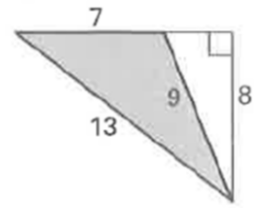
Practice AP-2

Name _____

Find the area of trapezoid



6. Find the area of the triangle.



Sketch and find the area of each figure described:

7. triangle: base, 11 m; height, 3 m

8. parallelogram: base, 8 cm; height, 9.5 cm

9. trapezoid: height, 12 yd; bases, 4 yd, 7 yd

10. parallelogram: base, 6.5 ft; height, 12 ft

11. trapezoid: height, 10 m; bases, 3 m, 6 m

12. triangle: base, 7 km; height, 5 km