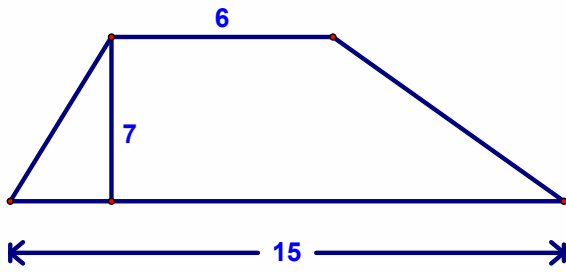3.

Given a trapezoid with bases 6 and 15 and height 7, find the length of median and the area.


4.

The bases of a trapezoid are 8 and 22, and the trapezoid's area is 135 cm². Find the height.

5.

The height of a trapezoid is 10 cm, and the trapezoid's area is 130 cm². If one base is 15, find the other base.

6.

A straight wire stretches between the tops of two poles whose heights are 30 ft. and 14 ft. Find the height of the pole that is to be placed halfway between the original poles to support the wire. Assume that the poles are perpendicular to the ground (Hint: do you see a trapezoid and its median?).
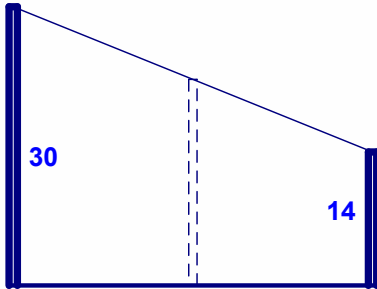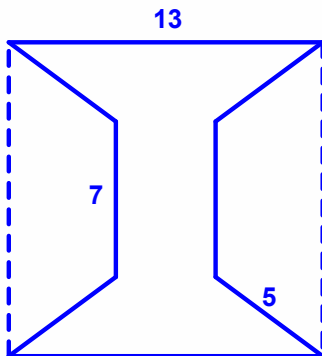

10.

The area of $\triangle PQS$ is 25. The median of trapezoid PQRS is 14. Base $\overline{RS}$ measures 18.

Find: a. the length of base $\overline{PQ}$

b. the height to base $\overline{PQ}$ of $\triangle PQS$

c. the height of trapezoid PQRS
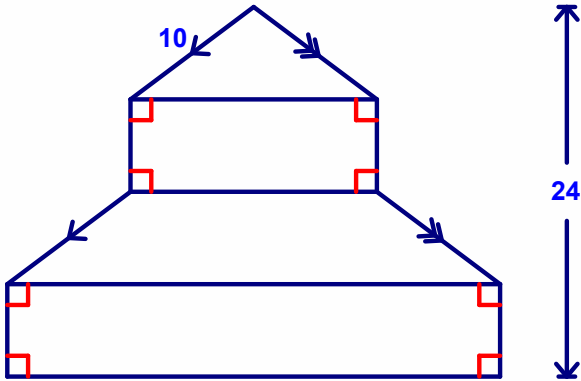
d. The area of trapezoid PQRS
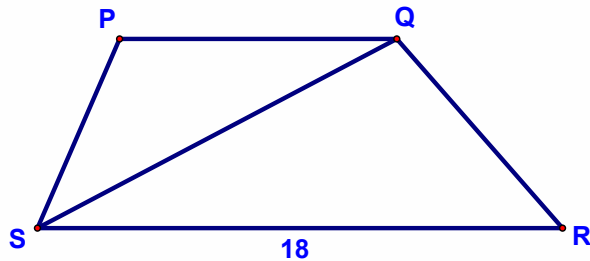
11.

Find the area of the figure shown, which was formed by cutting two identical isosceles trapezoids out of a square.
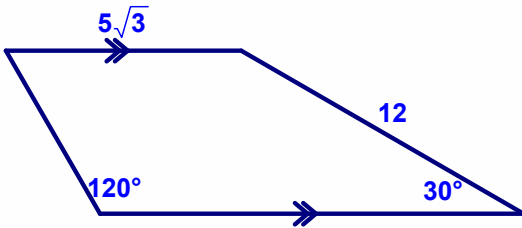
14.

The figure shown is composed of four regions of equal height. The triangle and the trapezoid are isosceles, and each side of the trapezoid is parallel to a side of the triangle. Find the total area.

17a.

Find the area of the trapezoid.

17b.

Find the area of the trapezoid.