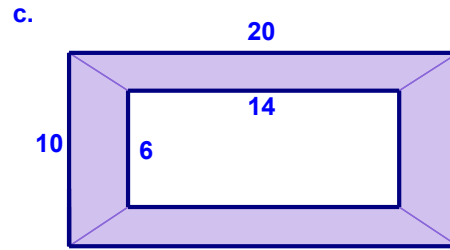
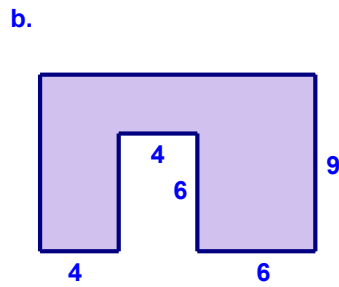
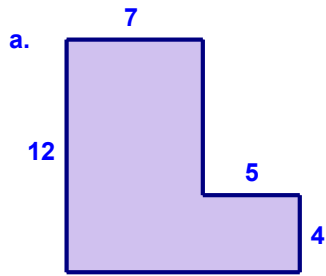


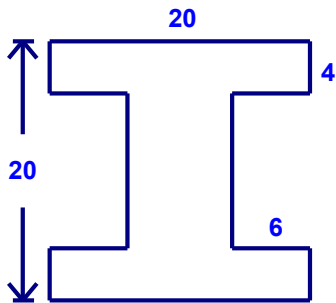
6.

Find the area of each shaded region (assume right angles).



9.

A cross section of a steel I-beam is shown. Assume right angles and symmetry from appearances. Find the area of the cross section if all measurements are in cm.



10.

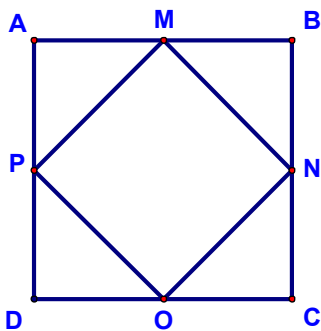
A rectangular picture measures 12 cm by 30 cm. It is mounted in a frame 2 cm wide. Find the area of the frame.

11.

The sides of a rectangle are in the ratio of 3:5, and the rectangle's area is 135 sq. meters. Find the dimensions of the rectangle.

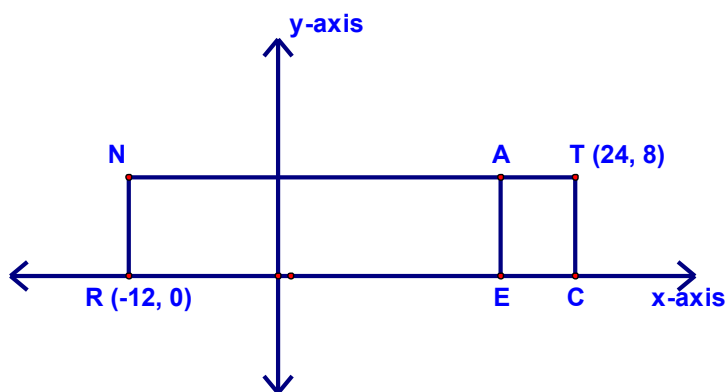
12.

The area of square ABCD is  $64 u^2$ . MNOP is formed by joining the midpoints of the sides of ABCD. Find the area and the perimeter of MNOP.



13.

If the area of rectangle RCTN is six times the area of rectangle AECT, find the coordinates of A.

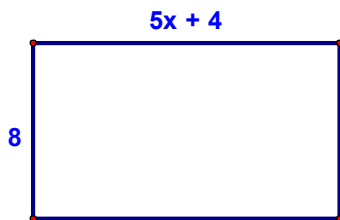


14.

The dimensions of a rectangle of area 72 are whole numbers. List the dimensions of all such rectangles. If two of these rectangles are chosen at random, what is the probability that each has a perimeter greater than 40?

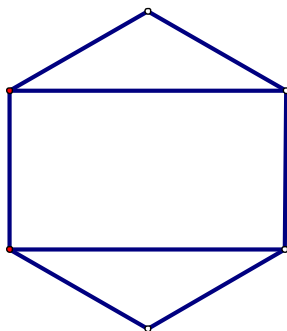
15.

The area of the rectangle is between  $84 \text{ mm}^2$  and  $124 \text{ mm}^2$ . What restrictions does this place on  $x$ ?



16.

A rectangle is formed by two diagonals of a regular hexagon as shown. Each side of the hexagon is 12. Find the area of the rectangle to the nearest tenth.



17.

A flag has dimensions 65 by 39. Each short stripe has a length of 39. What fractional part of the flag is red?

