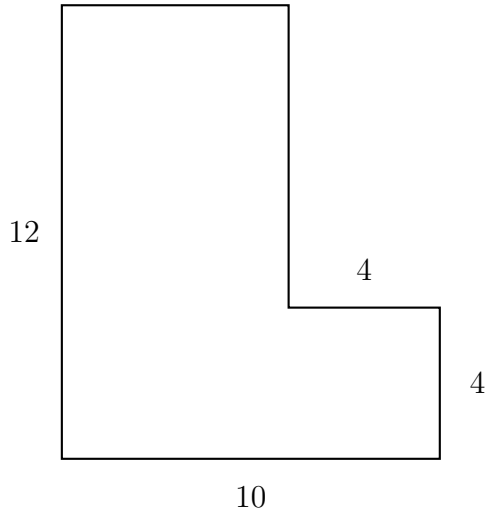
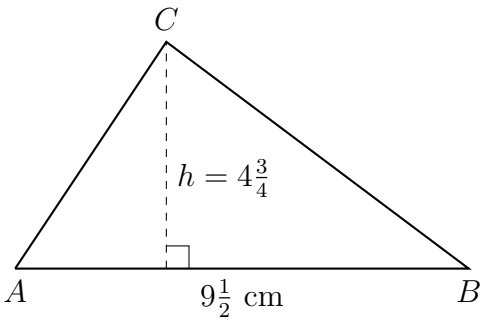
1.11 Review: Length and area

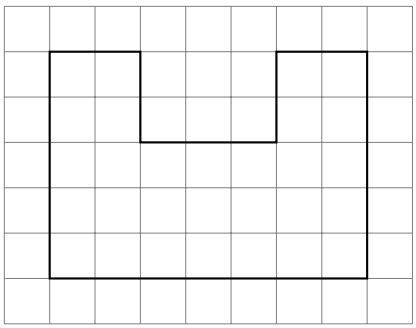
1. Find the area of the shape shown below. All angles are 90°. *(not drawn to scale)*



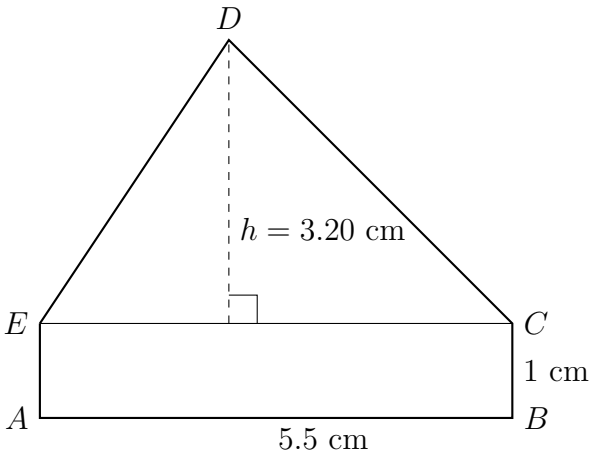
2. Find the area of $\triangle ABC$. The altitude h of the triangle is $4\frac{3}{4}$ centimeters and the base $AB = 9\frac{1}{2}$ cm. (diagram not to scale)



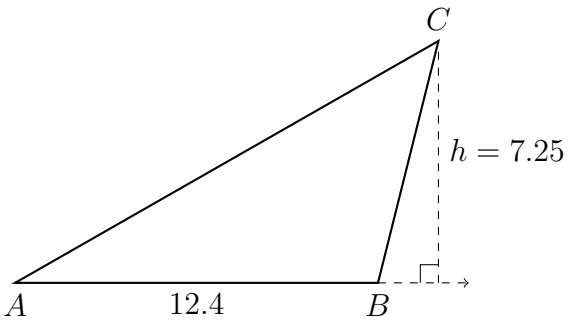
3. Find the area A of the shape shown below in terms of unit squares.



4. Find the area of shape $ABCDE$ below, a triangle on a rectangle. The altitude h of the triangle is 3.20 centimeters and the base $AB = 5.5$ cm. The rectangle is 1 cm tall. (diagram not to scale)



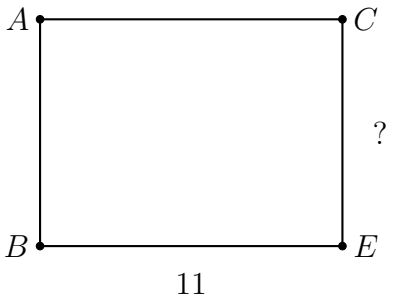
5. The side $\overline{AB}$ of triangle ABC is extended and an altitude to the vertex C is drawn, as shown below. The triangle's height is $h = 7.25$ and its base measures $AB = 12.4$. Find the area of the triangle.



6. A rectangle has an area of 44 square inches. Its width is 4 inches. Find its length.

7. A triangle has an area of 75 square centimeters. Its height is 12 centimeters. Find the length of its base.

8. The rectangle $BECA$ has an area of 77, with length $BE = 11$.
   (a) Write an equation with the unknown w as the width of the rectangle.
   (b) Solve.



9. Find the area and perimeter of the shape shown below. Mark the missing side lengths first. All angles are 90°. *(not drawn to scale)*

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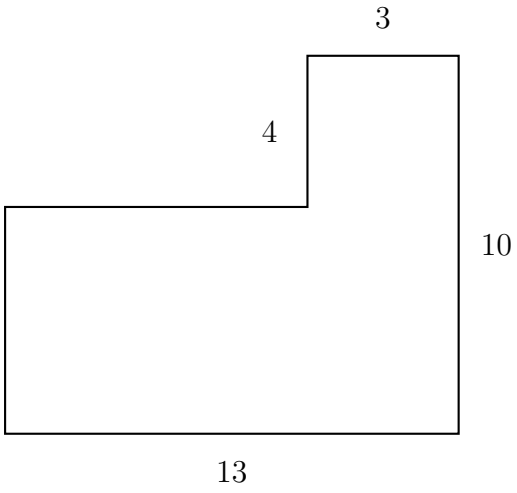
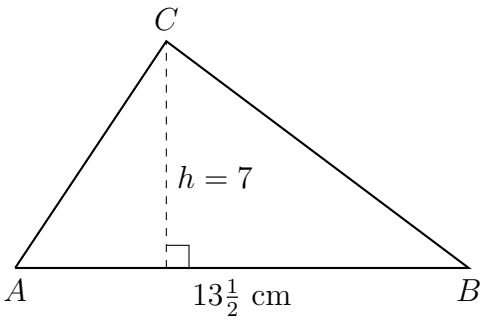


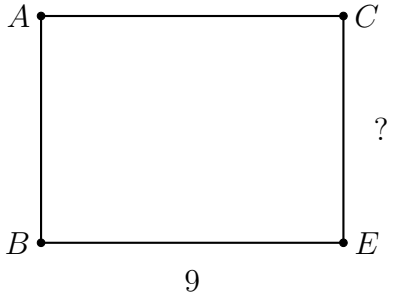
10. Find the area of $\triangle ABC$. The altitude h of the triangle is 7 centimeters and the base $AB = 13\frac{1}{2}$ cm. (diagram not to scale)



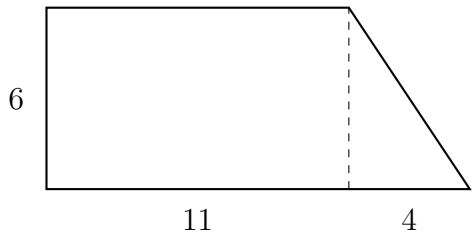
11. The rectangle $BECA$ has an area of 63, with length $BE = 9$.

    (a) Write an equation with the unknown w as the width of the rectangle.

    (b) Solve.



12. The compound shape shown below is composed of a rectangle 6 inches by 11 inches, and a triangle with base 4 inches. Find the total area of the combined shape.



13. A triangle has an area of 68 square centimeters. Its height is 16 centimeters. Find the length of its base.

14. The perimeter of a square is 10 inches. Find its area.