Name:

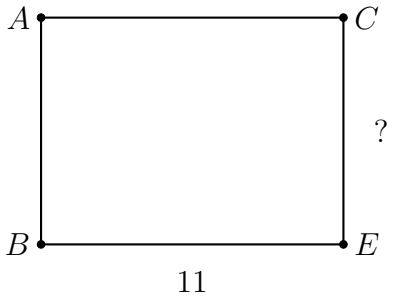
BECA / Dr. Huson / Geometry 02 Area and volume

2.8 Pretest: Compound areas, solving for a missing length

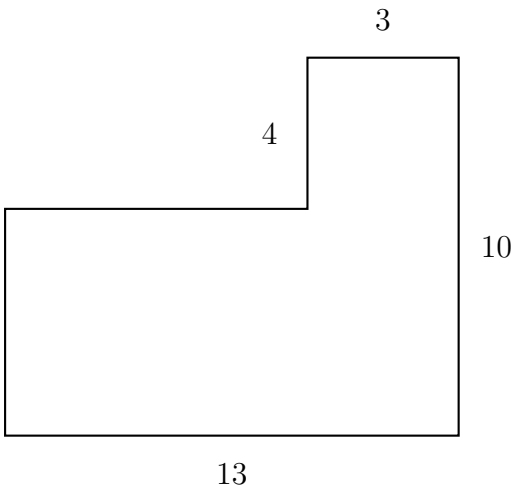
1. The rectangle $BECA$ has an area of 77, with length $BE = 11$.

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

   (b) Solve.

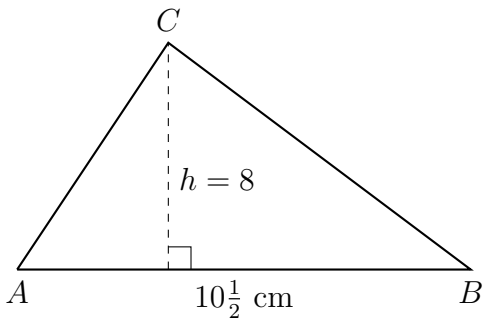


2. Find the area and perimeter of the shape shown below. Mark the missing side lengths first. All angles are 90°. *(not drawn to scale)*

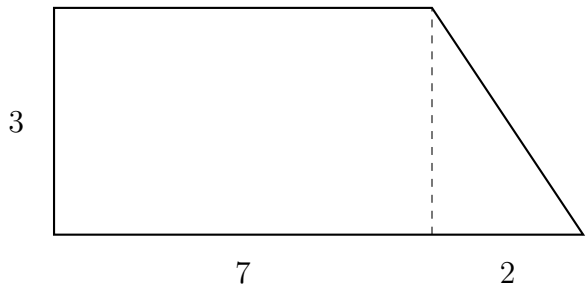


3. Find the area A and circumference C of a circle with radius 4 meters (in terms of π).

4. Find the area of $\triangle ABC$. The altitude h of the triangle is 8 centimeters and the base $AB = 10\frac{1}{2}$ cm. (diagram not to scale)



5. The compound shape shown below is composed of a rectangle 3 inches by 7 inches, and a triangle with base 2 inches. Find the total area of the combined shape.



6. The area of a square is 36 square centimeters. Find the length of the side of the square.

7. One side of the $\triangle ABC$ has a length $AB = 12$. The triangle's area is 60. Find the length of the altitude h of the triangle to vertex C and perpendicular to side $\overline{AB}$.