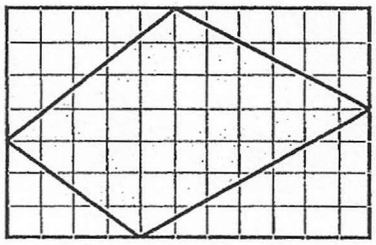
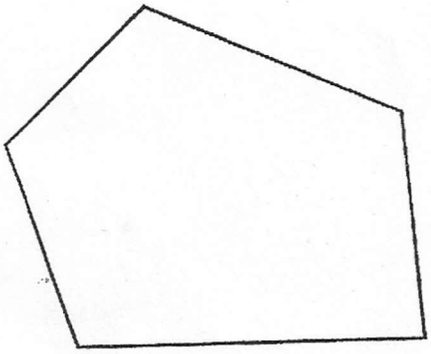
Area of Polygons

1. Find the area of the colored quadrilateral. (Hint: subtract.)

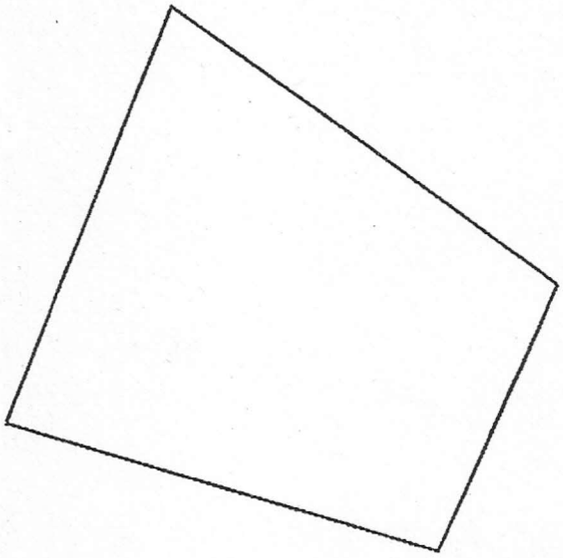


2. Find the areas of these shapes in square millimeters.

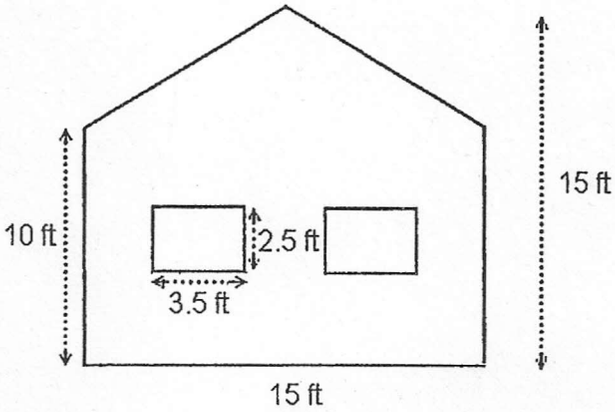
a.



b.



3. Jack is painting his house. One side of his house looks like this. It has two windows that are 2.5 x 3.5 ft. How many square feet is the area that needs painted (on this side)?



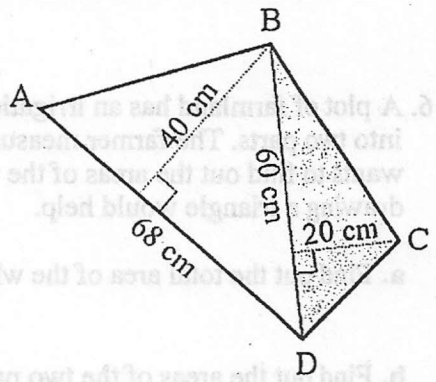
4. A certain triangle's base is 4 m, and its area is 15 m^2. What is its altitude?

Review: Area of Polygons 2

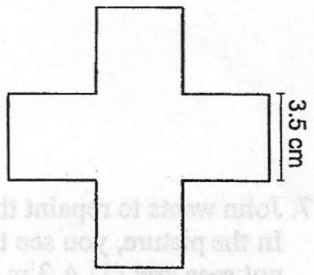
> Often, the only way to find the area of polygons is to divide them into rectangles, triangles, and parallelograms.
>
> Then, we find the areas of those shapes, and add them to get the area of the polygon.

You may use a calculator in this lesson.

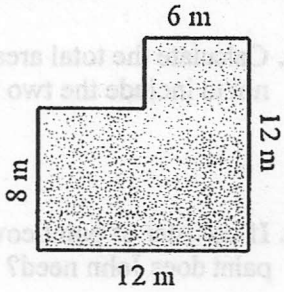
1. Find the area of quadrilateral ABCD, which is already divided into two triangles: triangle ABD, and triangle BCD.



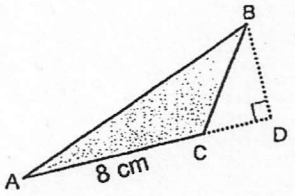
2. Find the area *and* perimeter of the figure.



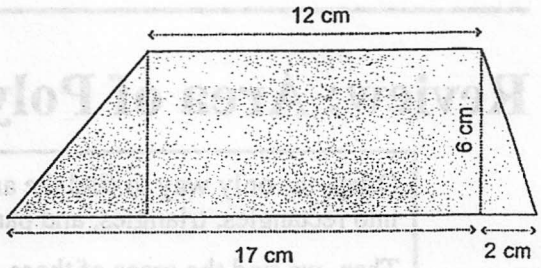
3. Find the area *and* perimeter of the figure.



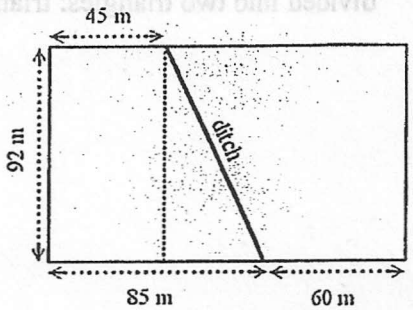
4. The area of the triangle ABC is 16 cm^2, and $\overline{AC}$ is 8 cm. Find the length of the line segment $\overline{BD}$.



5. Find the total area of the figure.



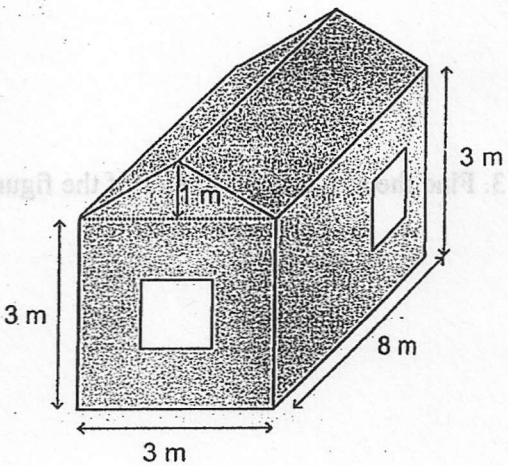
6. A plot of farmland has an irrigation ditch across it, which divides it into two parts. The farmer measures some of the distances, and wants to find out the areas of the two parts. He decides that drawing a triangle would help.



a. Find out the total area of the whole plot.

b. Find out the areas of the two parts.

7. John wants to repaint this little shed red, instead of green. In the picture, you see two sides of the shed. The two sides not seen are: (1) A 3 m × 8 m side without any windows or doors, and (2) A 3 m × 3 m side plus the little triangle, with one 1 m × 2 m door. The windows measure 1 m × 1 m.



a. Calculate the total area that needs painted. Remember not to include the two windows and the door.

b. If one liter of paint covers 20 m^2, how many liters of paint does John need?