Lesson 6.3 Calculating Area: Other Polygons

To find the area of an irregular shape, separate the shape into its component figures and find the area of each one.

7 mm 3 mm5 mm

This figure can be divided into two rectangles, as shown by the dotted line.

 $^{10\ \mathrm{mm}}$ To find the missing side measurement of shape A, look at the vertical measurements you already know: 10 mm and 7 mm. Because the missing side must be the difference between 10 and 7, subtract to get the answer: 10 - 7 = 3 mm.



To find the area of shape A, multiply $l \times w$.

$$3 \times 3 = 9 \text{ mm}$$

IO mm 2 mm

Follow the same steps to find the area of shape B.

$$5 - 3 = 2 \text{ mm}$$

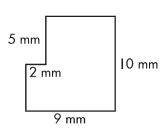
A = $10 \times 2 = 20 \text{ mm}$

Then, add the two areas together to get the area of the entire irregular shape.

$$9 + 20 = 29$$
 square mm

Find the area of each figure.

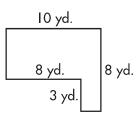
1.



a

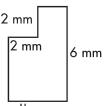
$$A =$$
 sq. mm

b



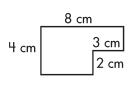
$$A = \underline{\hspace{1cm}}$$
 sq. yo

$$A = \underline{\hspace{1cm}}$$
 sq. yd.



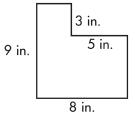
$$A =$$
 sq. mr

C



$$A =$$
_____sq. cm

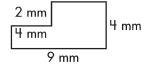
2.



$$A =$$
____ sq. in.



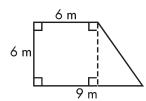
$$A =$$
_____ sq. mm



$$A =$$
_____ sq. mm

Lesson 6.3 Calculating Area: Other Polygons

Some irregular shapes are made up of more than one type of figure.

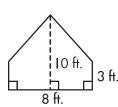


This figure can be divided into a square and a triangle.

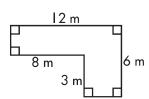
area of square area of triangle
$$A = 6 \times 6 = 36$$
 $A = \frac{1}{2} \times 3 \times 6 = 9$

The area of the figure is 36 + 9 = 45 square meters.

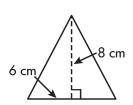
Find the area of each figure.



 $A = \underline{\hspace{1cm}}$ sq. ft.

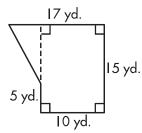


A =____ sq. m

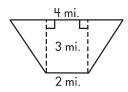


A =_____ sq. cm

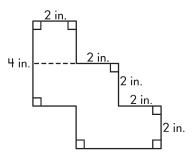
2.



 $A = \underline{\hspace{1cm}}$ sq. yd.



_ sq. mi.



 $A = \underline{\hspace{1cm}}$ sq. in.