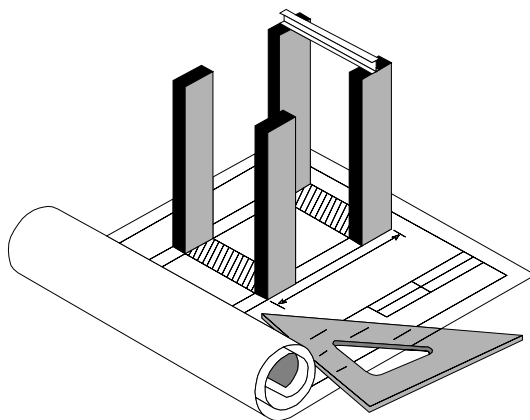


Real-Life Career Activity

Property Developer

Property developers buy areas of land and turn the areas into neighborhoods. The entire piece of land is called a *plat*. The developers divide the plat into individual housing plots. They must determine where to place roads and utilities. The developers coordinate with the city government to put in roads and with the utility companies to put in gas, electricity, water, telephones, and cable TV lines. It is important for developers to know all about the plats they buy, including the perimeter, so they can estimate the cost of the housing lots.



Suppose a rectangular plat is $\frac{3}{4}$ mile long and $\frac{1}{2}$ mile wide. What is the perimeter of the plat?

$$\begin{aligned} P &= \ell + w + \ell + w \\ &= \frac{3}{4} + \frac{1}{2} + \frac{3}{4} + \frac{1}{2} \\ &= 2\frac{1}{2} \end{aligned}$$

The perimeter is $2\frac{1}{2}$ miles.

Solve.

1. A rectangular plat is 1 mile long and $\frac{1}{2}$ mile wide. Find the perimeter of the plat.
2. A rectangular plat is $1\frac{1}{2}$ miles long and $\frac{3}{4}$ mile wide. Find the perimeter of the plat.
3. A rectangular plat is 1 mile long. The perimeter is 3 miles. Find the width of the plat.