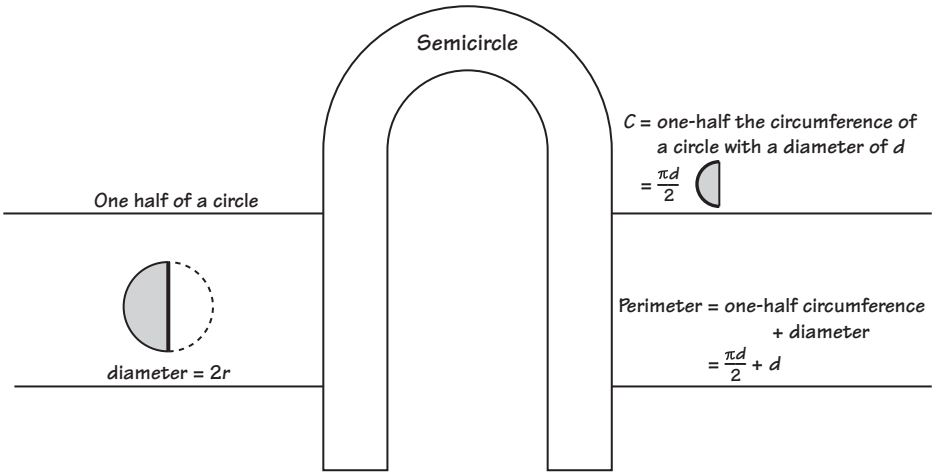
Chapter 8 Circles and Area

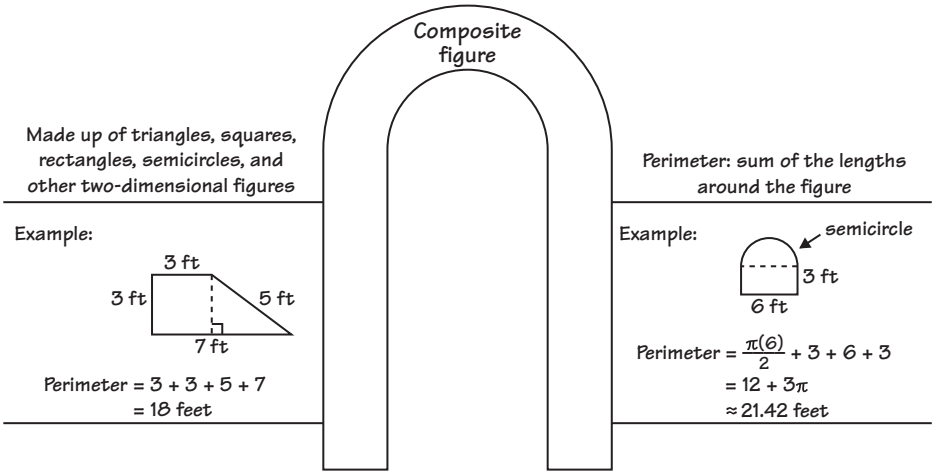
Word Magnet

1–5. Sample answers are given.

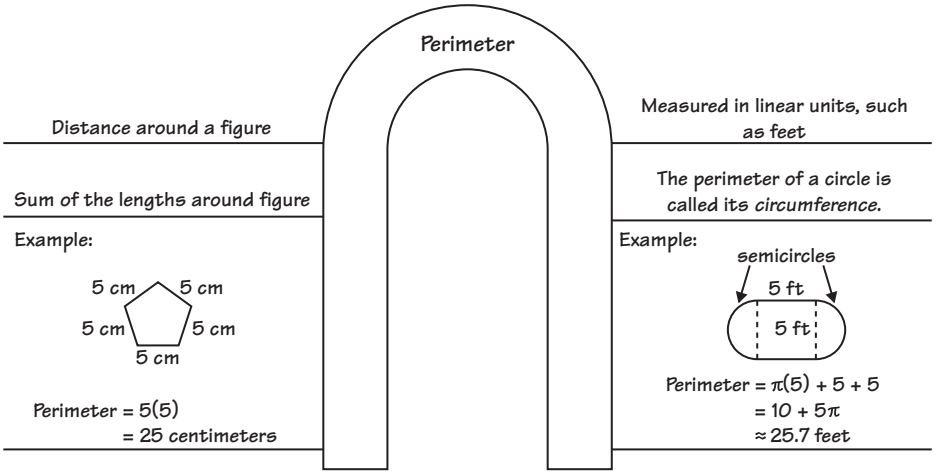
1.



2.



3.



4.

Area of a circle

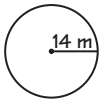
π times the radius squared

$A = \pi r^2$

Diameter = 2 • radius
$d = 2r$

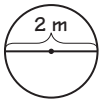
$A = \pi\left(\frac{d}{2}\right)^2 = \frac{\pi d^2}{4}$

Example:



$A = \pi(14)^2 = 196\pi$
≈ 616 square meters

Example:



$A = \frac{\pi(2)^2}{4} = \pi$
≈ 3.14 square meters

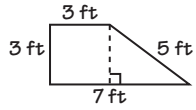
5.

Area of a composite figure

Made up of triangles, squares, rectangles, semicircles, and other two-dimensional figures

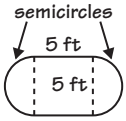
To find area, split up into figures with areas you know how to find. Then add the areas of those figures.

Example:



$A = 3^2 + \frac{1}{2}(3)(4)$
$= 15$ square feet

Example:



$A = \frac{\pi(5)^2}{4} + 5^2 = \frac{25\pi}{4} + 25$
≈ 44.625 square feet