

LESSON
8-3 **Interactive Study Guide**
Perimeter and Circumference

Perimeter is the distance around a figure. To find the perimeter of a polygon, add all side lengths. The distance around a circle is called the **circumference**.

Vocabulary
circumference
perimeter

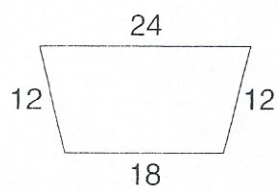
Finding the Perimeter of a Polygon

Find the perimeter of the polygon.

What is the sum of the lengths of the sides of the trapezoid?

$24 + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + 12 = \underline{\hspace{1cm}}$

The perimeter of the trapezoid is _____ units.



Using Properties of a Rectangle to Find Perimeter

Find the perimeter of the rectangle.

What is the formula for the perimeter of a rectangle? _____

What is the length of the rectangle? _____

What is the width of the rectangle? _____

$P = \underline{\hspace{1cm}}$

Write the perimeter formula.

$P = 2(\underline{\hspace{1cm}}) + 2(\underline{\hspace{1cm}})$

Substitute known values into the formula.

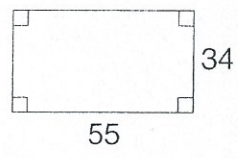
$P = \underline{\hspace{1cm}} + \underline{\hspace{1cm}}$

Multiply.

$P = \underline{\hspace{1cm}}$

Add.

The perimeter of the rectangle is _____ units.

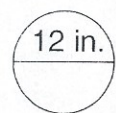


Finding the Circumference of a Circle

Find the circumference of each circle to the nearest tenth. Use 3.14 for π .

A. Do you know the length of the radius or diameter? _____

What is the formula for the circumference of a circle?



$C \approx 3.14(\underline{\hspace{1cm}})$

Substitute _____ for π and _____ for the diameter.

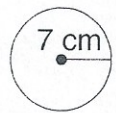
$C \approx 37.68$

Multiply.

The circumference of the circle is about _____

B. _____

What is the formula for the circumference of a circle when you know the radius?



$C \approx 2(\underline{\hspace{1cm}})3.14$

Substitute _____ for π and _____ for the radius.

$C \approx \underline{\hspace{1cm}}$

Multiply.

The circumference of the circle is about _____