

Just Elementary Math

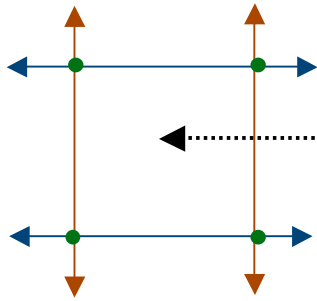
Introduction to Area & Perimeter

Linear & Square Units

Created by
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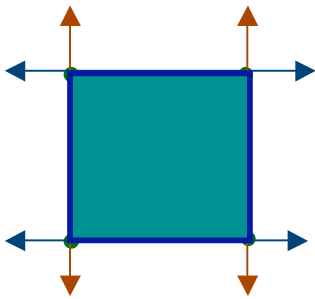
Retired Teacher
Chicago Public Schools





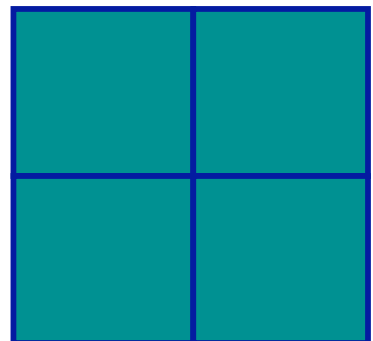
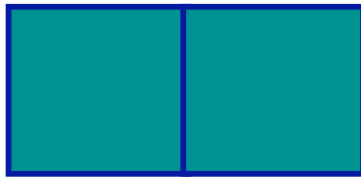
The space inside the four connected congruent line segments represents one square unit.

This figure represents one square unit.



One square unit **covers** the space within four congruent line segments.

The shaded space represents **area**.



Determine the number of square units or AREA



A.

Area = sq units



B.

Area = sq units



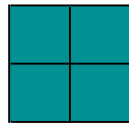
C.

Area = sq units



D.

Area = sq units



E.

Area = sq units



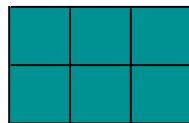
F.

Area = sq units



G.

Area = sq units



H.

Area = sq units



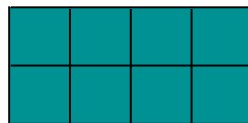
I.

Area = sq units



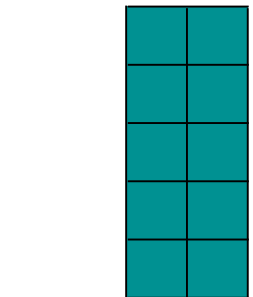
J.

Area = sq units



K.

Area = sq units



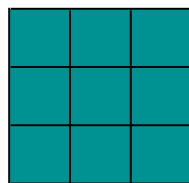
Area = sq units

N.



L.

Area = sq units



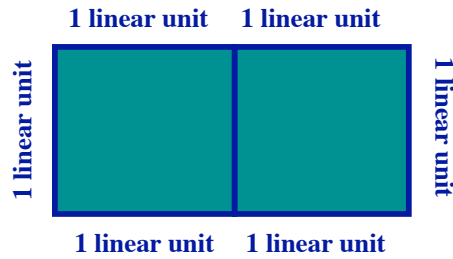
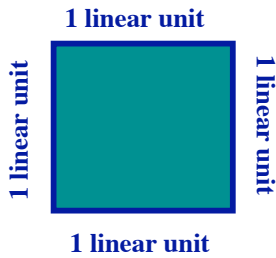
M.

Area = sq units



O.

Area = sq units

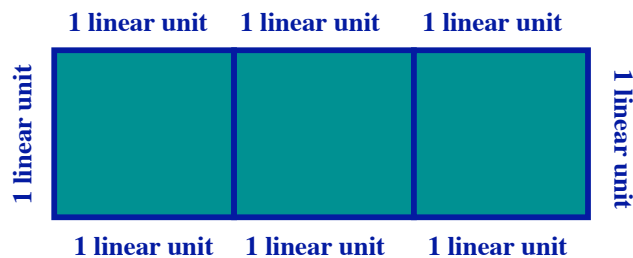


Two square units may share a **common line segment**.

The other line segments are **linear (line)** units of the perimeter.

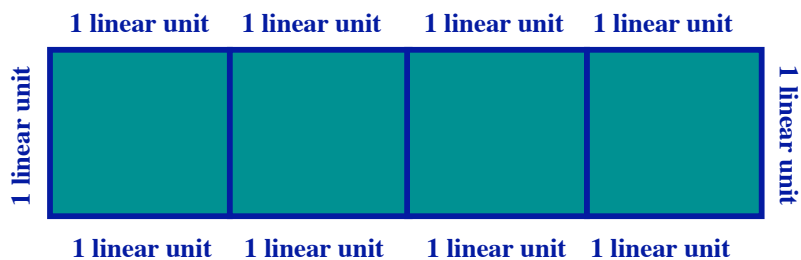
Their lengths are added to determine the perimeter of a polygon.

The **perimeter** or distance around the outside is 6 units (linear).



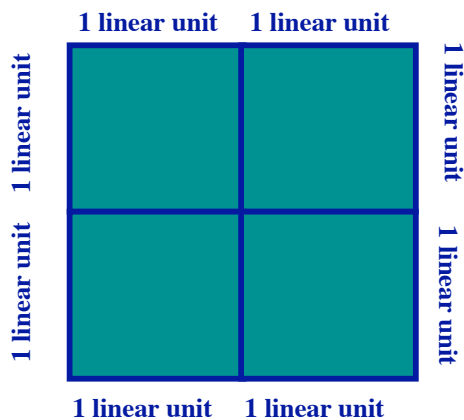
Three square units may share **two common line segments**.

The **perimeter** or distance around the outside is 8 units (linear).



Four square units may share **three common line segments**.

The **perimeter** or distance around the outside is 10 units (linear).



Four square units may share **four common line segments**.

The **perimeter** or distance around the outside is 8 units (linear).

Count the number of outside linear units that determine the PERIMETER



A.

Perimeter = units



B.

Perimeter = units



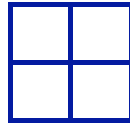
C.

Perimeter = units



D.

Perimeter = units



E.

Perimeter = units



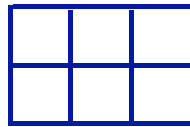
F.

Perimeter = units



G.

Perimeter = units



H.

Perimeter = units



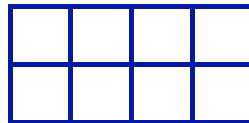
I.

Perimeter = units



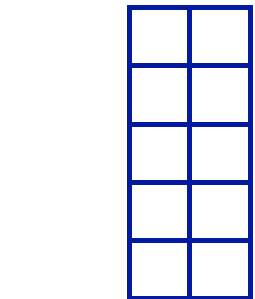
J.

Perimeter = units



K.

Perimeter = units



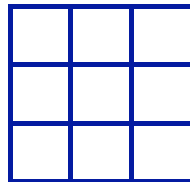
N.

Perimeter = units



L.

Perimeter = units



M.

Perimeter = units

O.

Perimeter = units

Linear and Square Units



The four congruent line segments that make a square unit can be any unit of measure.

This figure represents one square inch.

Each line segment measures approximately one inch.

The perimeter is 4 inches.



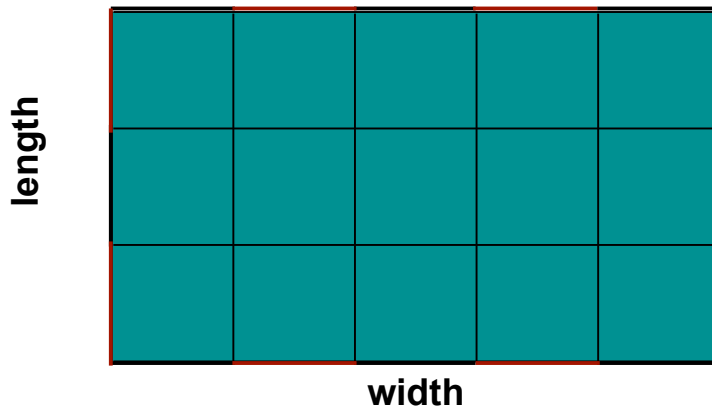
This figure represents one square centimeter.

Each line segment measures approximately one centimeter.

The perimeter is 4 centimeters.

Other square units include one square foot, one square yard, one square mile, etc.

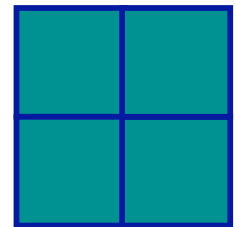
In books, units may appear smaller than the actual size in order to conserve space.







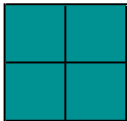
The 5 units across are called width (wide).

The 3 units down are called length (long).

The units can represent centimeters, inches, feet, yards, miles, etc.



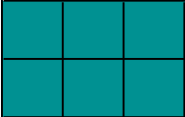




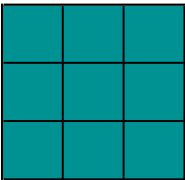

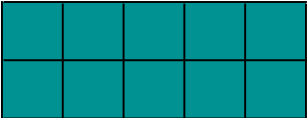


Area & Perimeter Math Table

	Area	Length	Width	Perimeter
	<input type="text"/> sq unit	<input type="text"/> unit	<input type="text"/> unit	<input type="text"/> units
	<input type="text"/> sq units	<input type="text"/> unit	<input type="text"/> units	<input type="text"/> units
	<input type="text"/> sq units	<input type="text"/> unit	<input type="text"/> units	<input type="text"/> units
	<input type="text"/> sq units	<input type="text"/> unit	<input type="text"/> units	<input type="text"/> units
	<input type="text"/> sq units	<input type="text"/> units	<input type="text"/> units	<input type="text"/> units

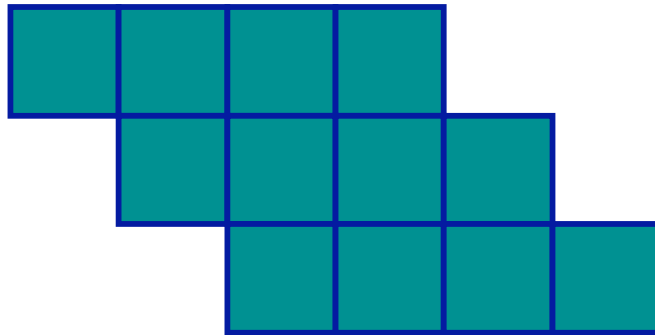
Enter data in blank squares.

Area & Perimeter Math Table

	Area	Length	Width	Perimeter
	<input type="text"/> sq units	<input type="text"/> units	<input type="text"/> units	<input type="text"/> units
	<input type="text"/> sq units	<input type="text"/> units	<input type="text"/> units	<input type="text"/> units
	<input type="text"/> sq units	<input type="text"/> units	<input type="text"/> units	<input type="text"/> units
	<input type="text"/> sq units	<input type="text"/> units	<input type="text"/> units	<input type="text"/> units
	<input type="text"/> sq units	<input type="text"/> units	<input type="text"/> units	<input type="text"/> units
	<input type="text"/> sq units	<input type="text"/> units	<input type="text"/> units	<input type="text"/> units
	<input type="text"/> sq units	<input type="text"/> units	<input type="text"/> units	<input type="text"/> units
	<input type="text"/> sq units	<input type="text"/> units	<input type="text"/> units	<input type="text"/> units
	<input type="text"/> sq units	<input type="text"/> units	<input type="text"/> units	<input type="text"/> units
	<input type="text"/> sq units	<input type="text"/> units	<input type="text"/> units	<input type="text"/> units

By definition, a rectangle has two pairs of opposite sides that are equal and parallel.

The figure below has an area of 12 square units, but it is not a rectangle.



Activities:

- Draw all rectangles with an area of 12 square units
- Draw all rectangles with an area of 14 square units
- Draw all rectangles with an area of 15 square units
- Draw all rectangles with an area of 16 square units
- Draw all rectangles with an area of 18 square units
- Draw all rectangles with an area of 20 square units
- Draw all rectangles with an area of 22 square units
- Draw all rectangles with an area of 24 square units

(Each rectangle must have equal numbers of squares in the rows.)