

Lesson 36 Perimeter and Area

Perimeter:

is the length of a closed line that corresponds to the boundary of a plane figure.

units of length??



Area:



is the measure of the surface defined by a figure.

units squared?!

Conversion

Kilo	Hecto	Deca	Unit	Deci	Centi	Milli
km	hm	dam	Meter	dm	cm	mm
kl	hl	dal	Liter	dl	cl	ml
kg	hg	dag	Grams	dg	cg	mg



X 10

Square Units (for area)

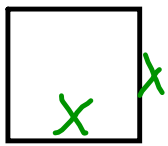
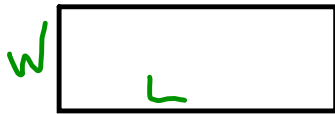
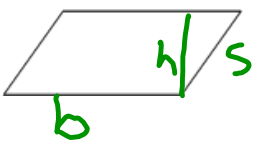
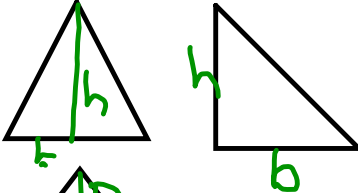
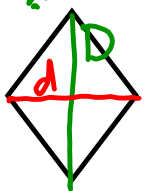
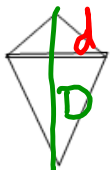
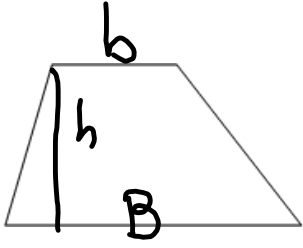
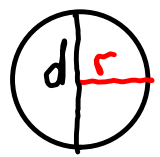
km^2 hm^2 dam^2 m^2 dm^2 cm^2 mm^2

Handwritten notes:
 - A curved arrow from dm^2 to cm^2 is labeled $\div 10$.
 - A curved arrow from cm^2 to mm^2 is labeled $\div 100$.
 - A curved arrow from m^2 to dm^2 is labeled $\times 100$.

Choice of Unit of Measure for Area

Name of area unit	Symbol	Example of appropriate context
Square kilometre	km^2	Area of 100 soccer fields
Square hectometre	hm^2	Area of one soccer field
Square decametre	dam^2	Area of half a tennis court
Square metre	m^2	Area of the work surface of a classroom desk
Square decimetre	dm^2	Area of the palm of a hand
Square centimetre	cm^2	Area of this square: 
Square millimetre	mm^2	Area of this square: 

Formulas

		AREA	PERIMETER
SQUARE		$A = x^2$	$P = 4x$
RECTANGLE		$A = L \times w$	$P = 2L + 2w$
PARALLELOGRAM		$A = b \times h$	$P = 2b + 2s$
TRIANGLE		$A = \frac{b \times h}{2}$	$P = \text{add all 3 sides}$
RHOMBUS		$A = \frac{D \times d}{2}$	$P = \text{add all 4 sides}$
KITE		$A = \frac{D \times d}{2}$	
TRAPEZOID		$A = \frac{(B + b)h}{2}$	$P = \text{add all 4 sides}$
CIRCLE		$A = \pi r^2$	$P = 2\pi r$ OR πd

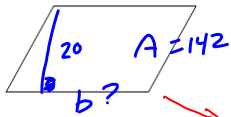
Solving Equations *working back*

Finding the value of the variable is the solution

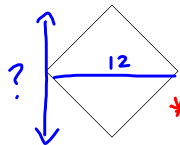
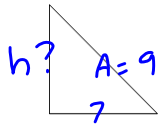
$A = 48$? $A = L \times W$
 $48 = 12 \times W$
 $4 = W$

$A = 64$?

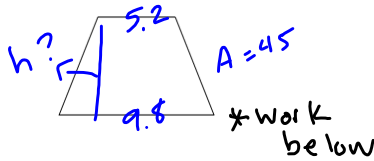
$A = X^2$
 $\sqrt{64} = \sqrt{X^2}$
 $8 = X$



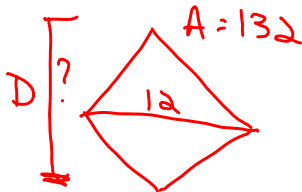
$A = bh$
 $142 = b \times 20$
 $7.1 = b$



$A = \frac{b \times h}{2}$
 $132 = \frac{12 \times h}{2}$

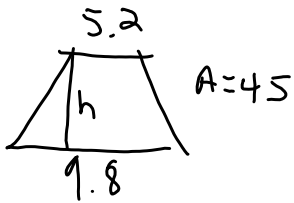


$\frac{9 \times 2}{7} = h$
 $2.57 = h$



$A = \frac{D \times d}{2}$
 $132 = \frac{D \times 12}{2}$

$\frac{132 \times 2}{12} = D$
 $22 = D$



$A = \frac{(B+b)h}{2}$

$45 = \frac{(5.2 + 9.8)h}{2}$

$45 = \frac{(15)h}{2}$

$\frac{45 \times 2}{15} = h$

Attachments

beauty in nature.asf