

SURFACE

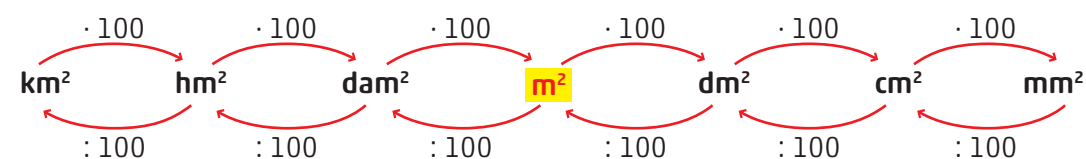
The **surface** of a shape is the part of the plane occupied by the shape itself.

AREA

The **area** of a shape is the measurement of its surface. It is the number that represents the number of times the unit of measurement is contained in the surface that is measured.

UNIT OF MEASUREMENT

The main unit of measurement is the square metre (m^2).

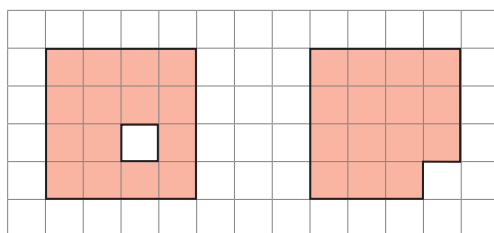
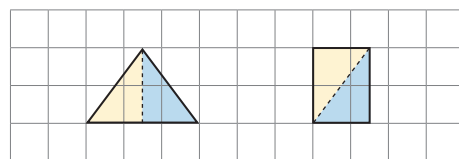
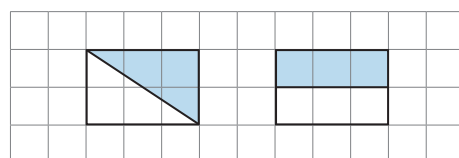
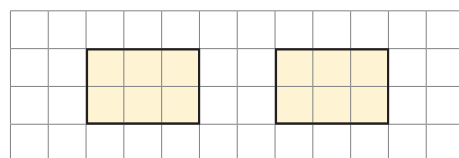


EQUIVALENT SHAPES

Two shapes are equivalent if they occupy the same surface.

Equivalent shapes are:

- congruent shapes;
- shapes that represent the same part of congruent shapes;
- shapes obtained as sum of congruent shapes;
- shapes obtained as difference of congruent shapes.



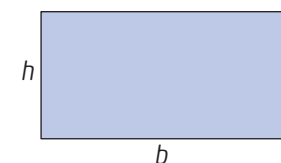
HOW DO YOU CALCULATE IT?

RECTANGLE

$$A = b \cdot h$$

$$b = A : h$$

$$h = A : b$$



SQUARE

$$A = l \cdot l = l^2$$

$$l = \sqrt{A}$$

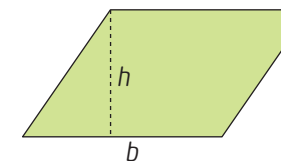


PARALLELOGRAM

$$A = b \cdot h$$

$$b = A : h$$

$$h = A : b$$

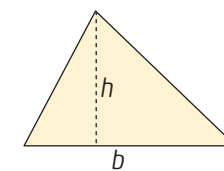


TRIANGLE

$$A = \frac{b \cdot h}{2}$$

$$b = \frac{A \cdot 2}{h}$$

$$h = \frac{A \cdot 2}{b}$$

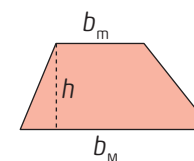


TRAPEZIUM

$$A = \frac{(b_M + b_m) \cdot h}{2}$$

$$b_M + b_m = \frac{A \cdot 2}{h}$$

$$h = \frac{A \cdot 2}{b_M + b_m}$$

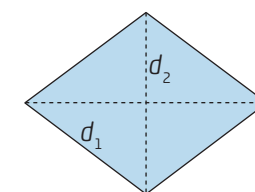


RHOMBUS

$$A = \frac{d_1 \cdot d_2}{2}$$

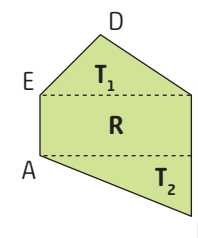
$$d_1 = \frac{A \cdot 2}{d_2}$$

$$d_2 = \frac{A \cdot 2}{d_1}$$



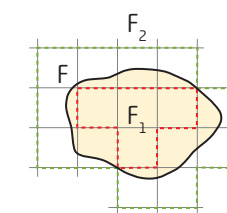
COMPOUND POLYGON

$$A_{ABCDE} = A_{T_1} + A_R + A_{T_2}$$



SHAPE WITH CURVED BOUNDARY

$$A_F \approx \frac{A_{F_1} + A_{F_2}}{2}$$



السطح

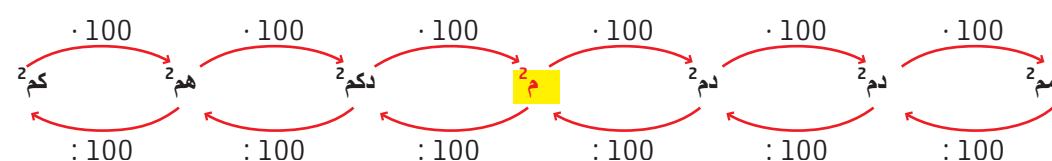
سطح الشكل هو جزء المستوى الذي يشغله

المساحة

مساحة الشكل هي قياس سطحه.
إنه العدد الذي يشير إلى عدد مرات احتواء وحدة القياس في السطح المراد قياسه.

وحدة القياس

وحدة القياس الرئيسية هي المتر المربع (م²).

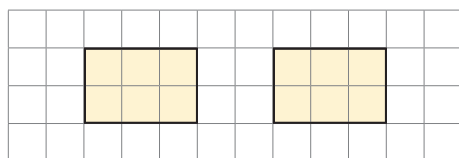


أشكال متكافئة

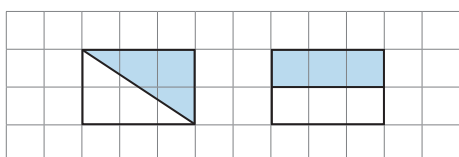
شكلان يكونان متكافئان إذا كانا يشغلا نفس السطح.

هم متكافئون:

■ أشكال متوافقة

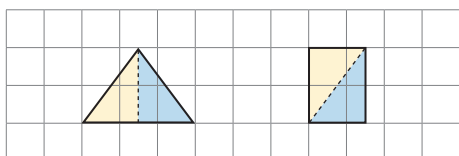


■ الأشكال التي تمثل نفس الجزء من الأشكال المتوافقة



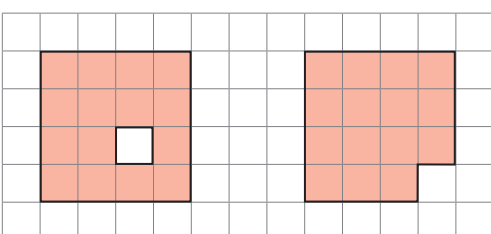
■ الأشكال التي تم الحصول عليها كمجموع

الأشكال المتوافقة



■ الأشكال التي تم الحصول عليها كإختلاف بين

الأشكال المتوافقة



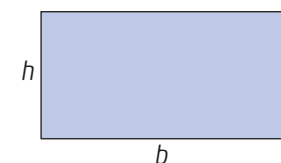
كيف يتم حسابها

مستطيل

$$A = b \cdot h$$

$$b = A : h$$

$$h = A : b$$



مربع

$$A = l \cdot l = l^2$$

$$l = \sqrt{A}$$

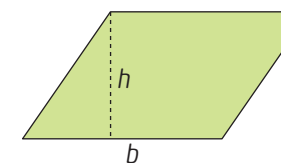


متوازي الأضلاع

$$A = b \cdot h$$

$$b = A : h$$

$$h = A : b$$

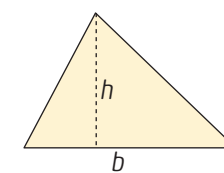


مثلث

$$A = \frac{b \cdot h}{2}$$

$$b = \frac{A \cdot 2}{h}$$

$$h = \frac{A \cdot 2}{b}$$

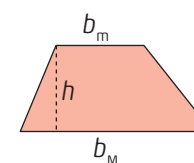


شبه المنحرف

$$A = \frac{(b_m + b_M) \cdot h}{2}$$

$$b_m + b_M = \frac{A \cdot 2}{h}$$

$$h = \frac{A \cdot 2}{b_m + b_M}$$

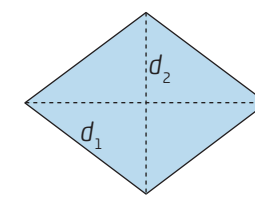


معين

$$A = \frac{d_1 \cdot d_2}{2}$$

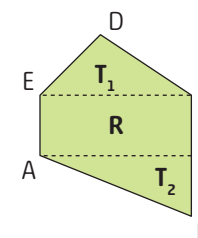
$$d_1 = \frac{A \cdot 2}{d_2}$$

$$d_2 = \frac{A \cdot 2}{d_1}$$



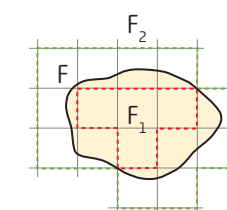
المضلع المركب

$$A_{ABCDE} = A_{T_1} + A_R + A_{T_2}$$



الشكل ذو إطار منحنى

$$A_F \approx \frac{A_{F_1} + A_{F_2}}{2}$$



表面

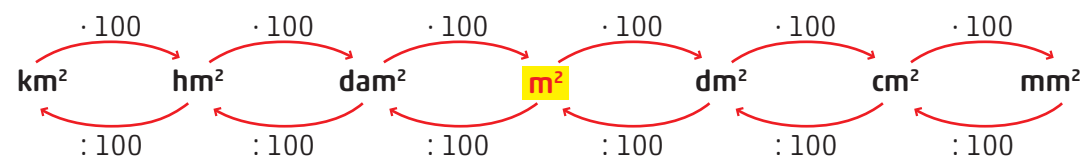
图形的**表面**是它所占据的平面的一部分。

面积

图形的**面积**是这个图形的表面大小。它是一个数字，表示要测量的表面中包含了多少次的计量单位。

计量单位

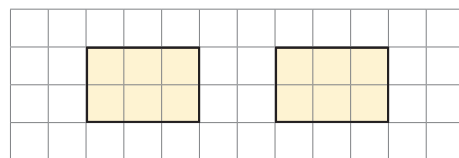
主要计量单位是平方米(m^2)。



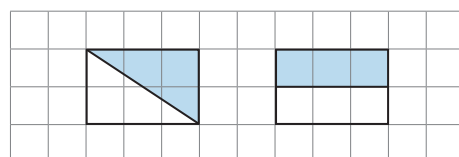
等积形

如果两个图形占据相同的表面，则它们是等积的。它们是等积的：

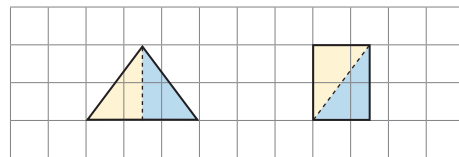
■ 全等图形



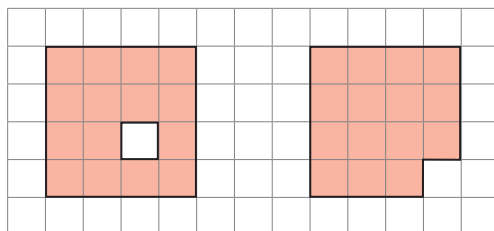
■ 代表全等图形中相同大小部分的图形；



■ 全等图形相加所得到的图形；



■ 全等图形减去相同大小部分所得到的图形。



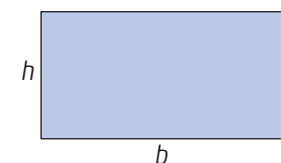
如何计算

长方形

$$A = b \cdot h$$

$$b = A : h$$

$$h = A : b$$



正方形

$$A = l \cdot l = l^2$$

$$l = \sqrt{A}$$

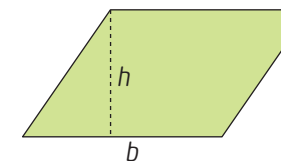


平行四边形

$$A = b \cdot h$$

$$b = A : h$$

$$h = A : b$$

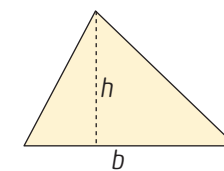


三角形

$$A = \frac{b \cdot h}{2}$$

$$b = \frac{A \cdot 2}{h}$$

$$h = \frac{A \cdot 2}{b}$$

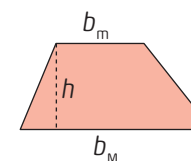


梯形

$$A = \frac{(b_M + b_m) \cdot h}{2}$$

$$b_M + b_m = \frac{A \cdot 2}{h}$$

$$h = \frac{A \cdot 2}{b_M + b_m}$$

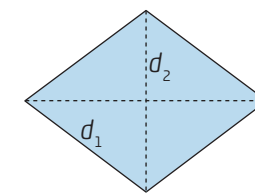


菱形

$$A = \frac{d_1 \cdot d_2}{2}$$

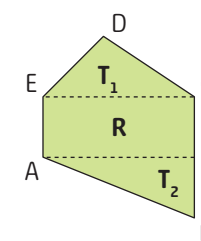
$$d_1 = \frac{A \cdot 2}{d_2}$$

$$d_2 = \frac{A \cdot 2}{d_1}$$



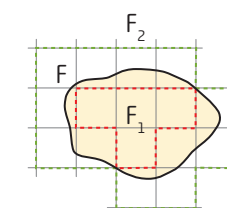
组合多边形

$$A_{ABCDE} = A_{T_1} + A_R + A_{T_2}$$



曲线轮廓图

$$A_F \approx \frac{A_{F_1} + A_{F_2}}{2}$$



LA SURFACE

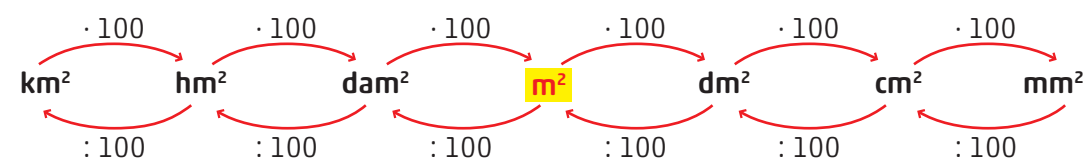
La **surface** d'une figure est la partie du plan qu'elle occupe.

L'AIRE

L'**aire** d'une figure est la mesure de sa surface.
C'est le nombre qui indique combien de fois l'unité de mesure est contenue dans la surface à mesurer.

UNITÉ DE MESURE

La principale unité de mesure est le mètre carré (m^2).

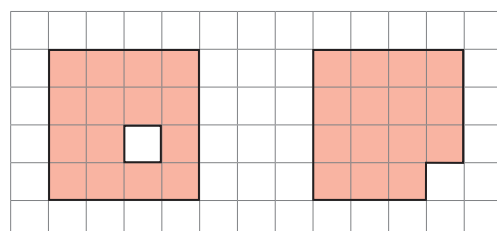
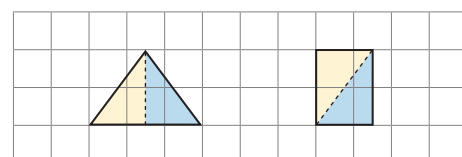
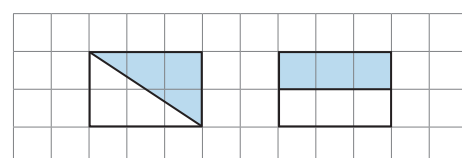
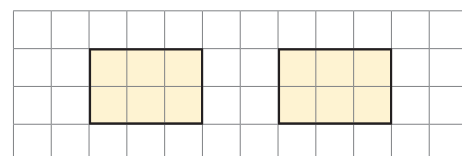


FIGURES ÉQUIVALENTES

Deux figures sont équivalentes si elles occupent la même surface.

Sont équivalentes:

- des figures congruentes;
- des figures qui représentent la même partie de figures congruentes;
- des figures obtenues en tant que somme de figures congruentes;
- des figures obtenues en tant que différence de figures congruentes.



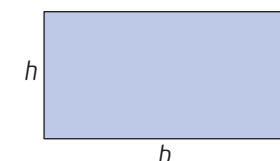
COMMENT LA CALCULER

RECTANGLE

$$A = b \cdot h$$

$$b = A : h$$

$$h = A : b$$



CARRÉ

$$A = l \cdot l = l^2$$

$$l = \sqrt{A}$$

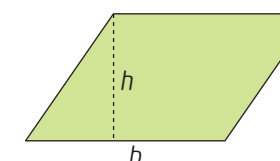


PARALLÉLOGRAMME

$$A = b \cdot h$$

$$b = A : h$$

$$h = A : b$$

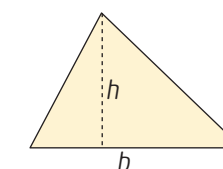


TRIANGLE

$$A = \frac{b \cdot h}{2}$$

$$b = \frac{A \cdot 2}{h}$$

$$h = \frac{A \cdot 2}{b}$$

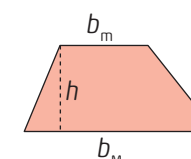


TRAPÈZE

$$A = \frac{(b_M + b_m) \cdot h}{2}$$

$$b_M + b_m = \frac{A \cdot 2}{h}$$

$$h = \frac{A \cdot 2}{b_M + b_m}$$

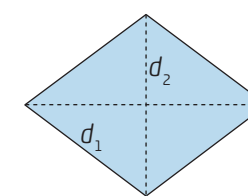


LOSANGE

$$A = \frac{d_1 \cdot d_2}{2}$$

$$d_1 = \frac{A \cdot 2}{d_2}$$

$$d_2 = \frac{A \cdot 2}{d_1}$$



POLYGONE COMPOSÉ

$$A_{ABCDE} = A_{T_1} + A_R + A_{T_2}$$

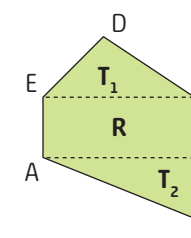
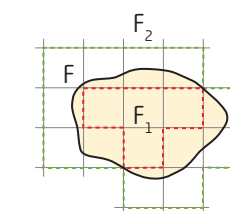


FIGURE AU CONTOUR CURVILIGNE

$$A_F \approx \frac{A_1 + A_2}{2}$$



SUPRAFAȚĂ

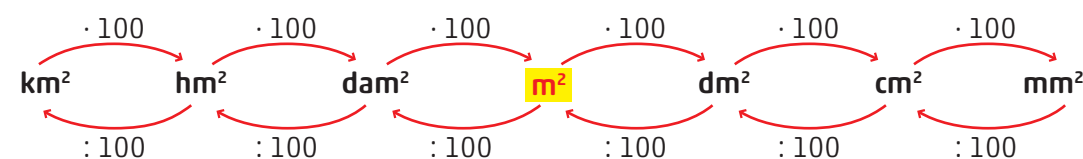
Suprafața unei figuri este partea din plan ocupa de aceasta.

ARIA

Aria unei figuri este măsura propriei suprafețe. Este numărul care indică de câte ori unitatea de măsură este cuprinsă în suprafața de măsurat.

UNITATE DE MĂSURĂ

Unitatea principală de măsură este metrul pătrat (m^2).

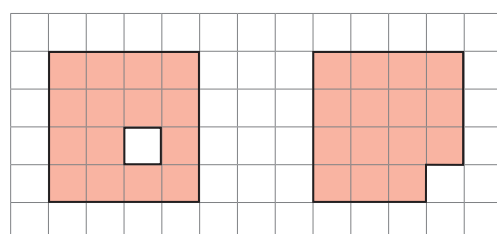
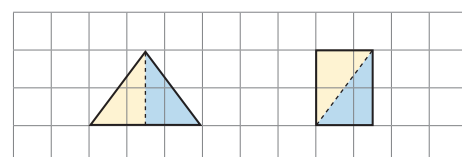
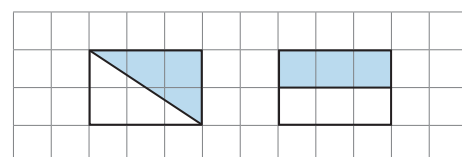
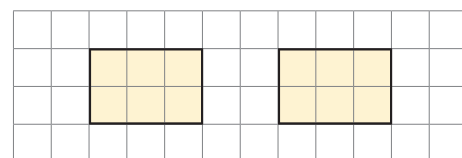


FIGURI ECHIVALENTE

Două figuri sunt echivalente dacă ocupă aceeași suprafață.

Sunt echivalente:

- figuri congruente;
- figuri care reprezintă aceeași parte a figurilor congruente;
- figuri obținute prin sumă figurilor congruente;
- figuri obținute prin diferența figurilor congruente.



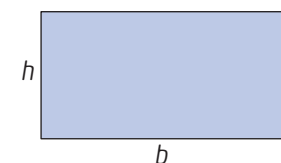
CUM SE CALCULEAZĂ

DREPTUNGHI

$$A = b \cdot h$$

$$b = A : h$$

$$h = A : b$$



PĂTRAT

$$A = l \cdot l = l^2$$

$$l = \sqrt{A}$$

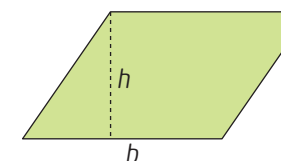


PARALELOGRAM

$$A = b \cdot h$$

$$b = A : h$$

$$h = A : b$$

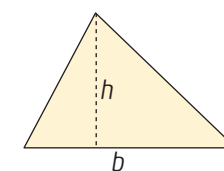


TRIUNGHI

$$A = \frac{b \cdot h}{2}$$

$$b = \frac{A \cdot 2}{h}$$

$$h = \frac{A \cdot 2}{b}$$

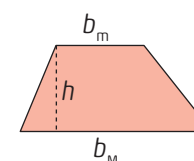


TRAPEZ

$$A = \frac{(b_M + b_m) \cdot h}{2}$$

$$b_M + b_m = \frac{A \cdot 2}{h}$$

$$h = \frac{A \cdot 2}{b_M + b_m}$$

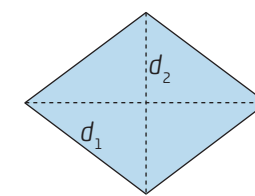


ROMB

$$A = \frac{d_1 \cdot d_2}{2}$$

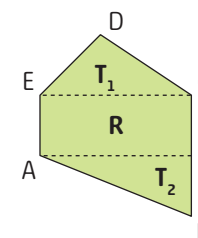
$$d_1 = \frac{A \cdot 2}{d_2}$$

$$d_2 = \frac{A \cdot 2}{d_1}$$



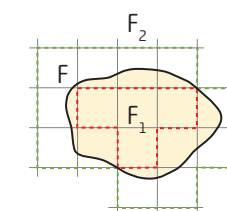
POLIGON COMPUS

$$A_{ABCDE} = A_{T_1} + A_R + A_{T_2}$$



FIGURĂ CU CONTUR CURBILINIAR

$$A_F \approx \frac{A_{F_1} + A_{F_2}}{2}$$



LA SUPERFICIE

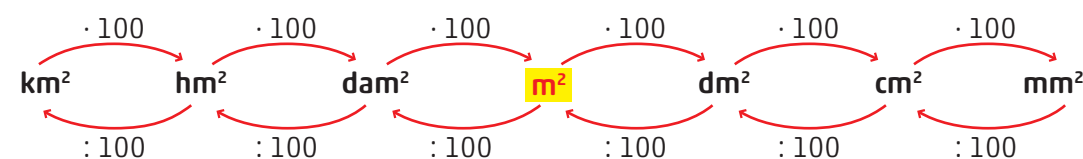
La **superficie** de una figura es la parte de plano que ésta ocupa.

EL ÁREA

El **área** de una figura es la medida de su superficie.
Es el número que indica cuántas veces la unidad de medida cabe en la superficie por medir.

UNIDADES DE MEDIDA

La unidad de medida principal es el metro cuadrado (m^2).

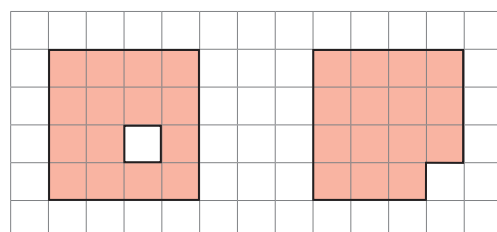
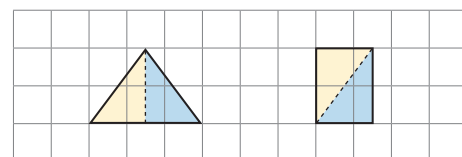
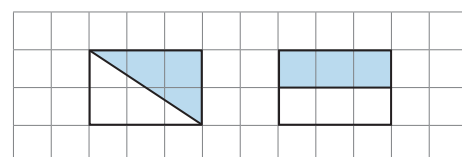
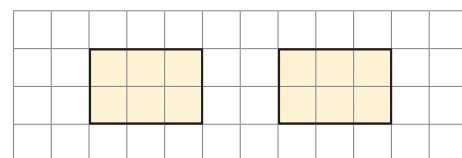


FIGURAS EQUIVALENTES

Dos figuras son equivalentes si ocupan la misma superficie.

Son equivalentes:

- figuras congruentes;
- figuras que representan la misma parte de figuras congruentes;
- figuras que se han obtenido como suma de figuras congruentes;
- figuras que se han obtenido como diferencia de figuras congruentes.



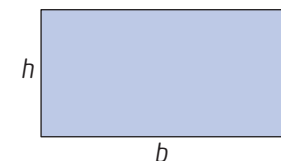
CÓMO SE CALCULA

RECTÁNGULO

$$A = b \cdot h$$

$$b = A : h$$

$$h = A : b$$



CUADRADO

$$A = l \cdot l = l^2$$

$$l = \sqrt{A}$$

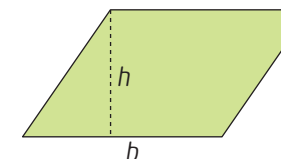


PARALELOGRAMO

$$A = b \cdot h$$

$$b = A : h$$

$$h = A : b$$

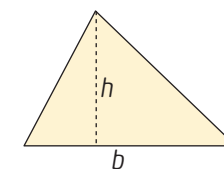


TRIÁNGULO

$$A = \frac{b \cdot h}{2}$$

$$b = \frac{A \cdot 2}{h}$$

$$h = \frac{A \cdot 2}{b}$$

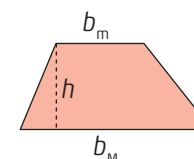


TRAPECIO

$$A = \frac{(b_M + b_m) \cdot h}{2}$$

$$b_M + b_m = \frac{A \cdot 2}{h}$$

$$h = \frac{A \cdot 2}{b_M + b_m}$$

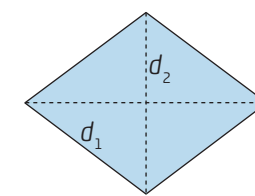


ROMBO

$$A = \frac{d_1 \cdot d_2}{2}$$

$$d_1 = \frac{A \cdot 2}{d_2}$$

$$d_2 = \frac{A \cdot 2}{d_1}$$



POLÍGONO COMPUESTO

$$A_{ABCDE} = A_{T_1} + A_R + A_{T_2}$$

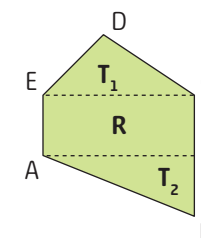


FIGURA CON CONTORNO CURVILÍNEO

$$A_F \approx \frac{A_{F_1} + A_{F_2}}{2}$$

