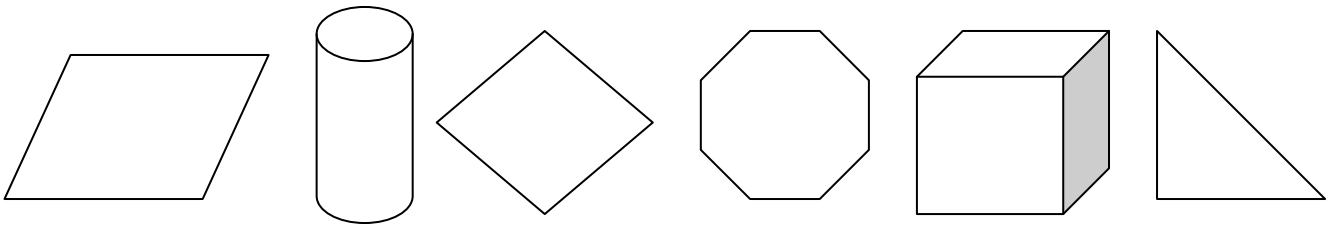
MATHS WORD BOOK

Portuguese/English

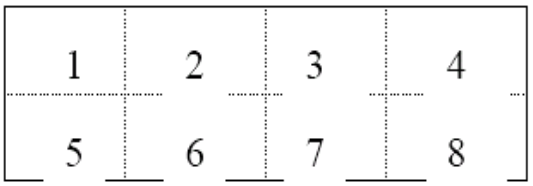


1.	**Signs and Symbols**	***1. Sinais e Símbolos***
	ADDITION	***ASIÇAO***
	add	*juntar*
	plus	*mais*
+	and	*e*
	total of	*o total de*
	increase by	*acrescentado por*
	sum of	*asoma de*
	altogether	*tudo juntos*
	SUBTRACTION	***SUBTRACÇAO***
	subtract	*subtrair*
	minus	*menos*
	take away	*tirar*
−	less	*menos de*
	decrease by	*decrescer por*
	reduce by	*reduzir por*
	from	*de*
	difference between	*a diferença entree*
	MULTIPLICATION	***MULTIPLICAÇAO***
	multiplied by	*Multiplicaçao por*
	times	*vezes*
×	by	*por*
	groups of	*grupos de*
	lots of	*conjuntos de*
	the product of (3 x 4)	*o profuyo de*
	DIVISION	***DIVISÃO***
÷	divided by	*dividir por*
	into	*em*
	share	*dividir*
	equals	*igual a*
	is	*é*
=	is the same as	*é o mesmo que*
	makes	*faz*
	has the same value as	*tem o mesmo value que*

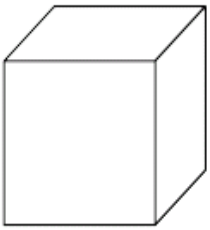
≅	is approximately	*é aproximadamente*
	about	*cerca de*
	close to	*perto de*
	nearly	*quase*
	around	*cerca de*
	almost the same as	*quase o mesmo que*
>	is more than	*é mais do que*
	is greater than	*é maior que*
	is bigger than	*é maior que*
<	is less than	*é menos que*
	is smaller than	*é menor que*
	is not as big as	*não é tão grande como*
≥	bigger than or equal to	*maior ou igual a*
≤	smaller than or equal to	*menor ou igual a*
%	per cent	*por cento*
:	ratio	*razão*
↻	clockwise	*no sentido dos pontriros do relógio*
↺	anticlockwise counter clockwise	*no sentido contrárao dos pontriros do relógio*
√	root	*raíz quadrada*
∞	infinity	*infinito*

2. Area - *Área*

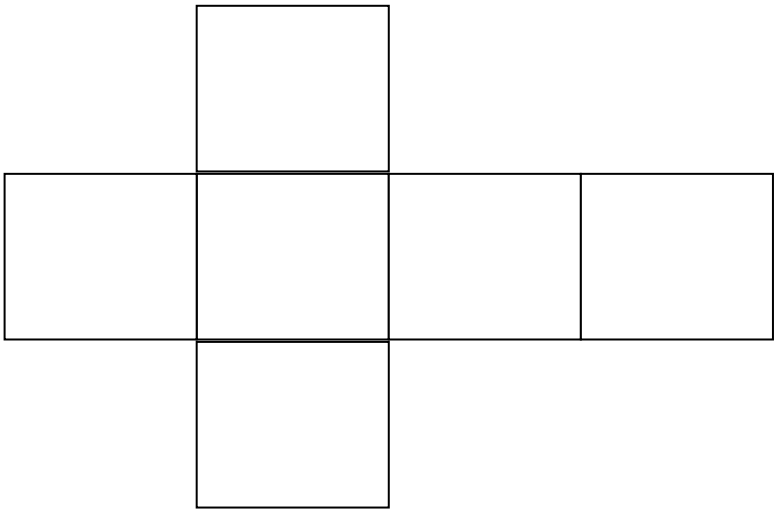
Area means how much space a flat (two dimensional) shape takes up. We measure area in square e.g. square centimeters (cm^2).
Área significa a guantidade de espaço que uma figura plana (bidimensionl) ocupa. A area é medida em quadrados (cm^2).



Area = length x width
= 4cm x 2cm
= 8 cm^2
Área = comprimento x largura
= 4cm x 2cm
= 8 cm^2



A cube has six faces. The surface area of a cube may be drawn like this:
Um cubo tem seis faces. A area de superficie de um cubo pode ser desenhada desta forma:



3. Volume - *Volume*

Volume means how much space a solid (3 dimensional) shape takes up. We measure volume in cubes. e. g.

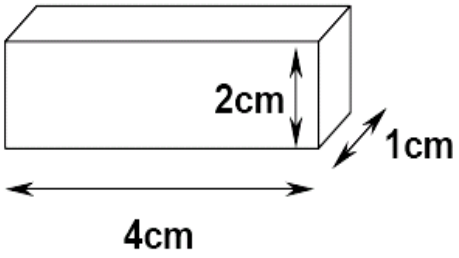
cubic centimeters (cm^3).

U Volume significa a quantidade de espaço que uma forma sólida (tridimensional) ocupa. Mede-se o volume em cubos. Por exemplo:

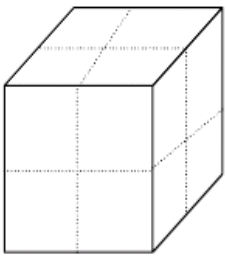
centímetros cúbicos (cm^3).

Volume = length x width x height

Volume = comprimento x largura x altura



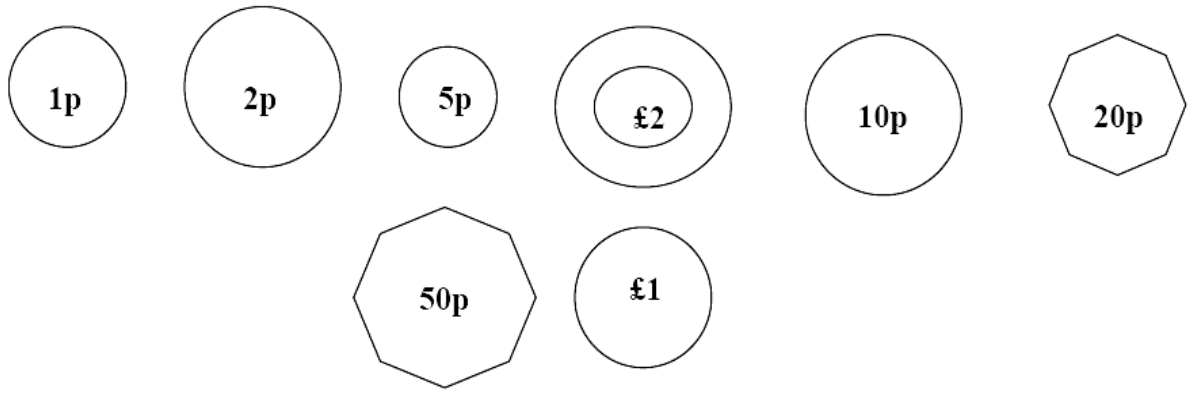
V = 4 x 1 x 2
V = 8cm^3



This cube is made of eight centimeter cubes.
Its volume is 8cm^3.
Este cubo é feito de oito centímetros cúbios.
O seu volume é 8cm^3.

4. Money – *Dinheiro*

These are the coins used in Britain:
Estas são as moedas usadas na Grã-Bretanha:



One pound (£1) is 100 pence.
Uma libea (£1) é 100 pence.

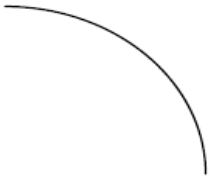
These are the notes in use:
Estas são as notas em uso:

We usually write prices like this:
Geralmente excreve – se os preços assim:

£2.99 **£3.25**

5. Lines - *Linhas*

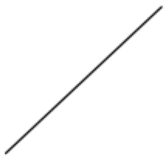
straight line - *linha recta*



curved line - *linha curva*

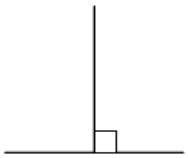
horizontal line - *linha horisontal*

vertical line - *linha vertical*

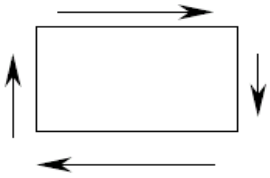


diagonal line - *linha diagonal*

parallel lines - *linas paralelas*

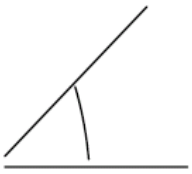


perpendicular lines - *linhas perpendiculars (ânglulo recto)*

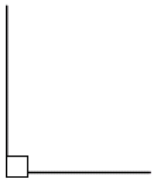


perimeter - *perímetro*

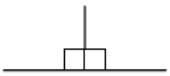
6. Angles - *Ângulos*



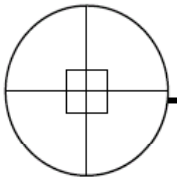
These two lines meet at an angle. An angle is measured in degrees (º).
Estas duas linhas encontram-se num ângulo.



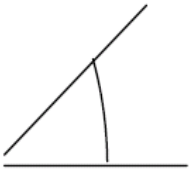
This is a right-angle. It is 90º.
Este è um ăngulo – re ctd . Te, 90º.



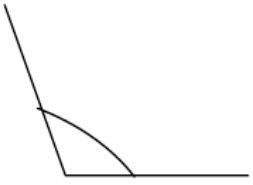
A straight line is made of two right angles. It is 180º
Uma linha recta é feita de dois ângulos rectos. Tem 180º.



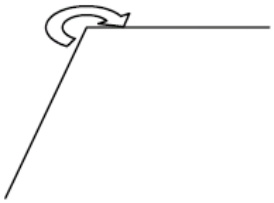
A circle is made of four right angles. It has 360º
Um circulo è feita de dois ângulos rectos. Tem 360º.



An angle which measures less than 90º is called an acute angle.
Um ăngulo cuja medida é menor que 90º é chamado ăngulo agudo

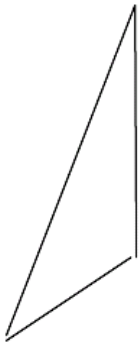


An angle which measures more than 90º is called an obtuse angle.
Um ăngulo cuja medida é chamado ăngulo obtuso.



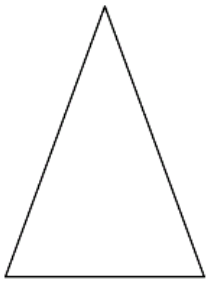
An angle which measures more than 180º is called a reflex angle
Um ăngulo cuja medida é maior que 180º é chamado ăngulo reflexo.

7. Triangles - *Triângulo*



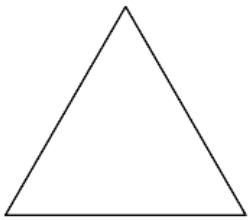
A triangle is a shape with 3 straight sides. It also has 3 angles. The points of a triangle are called vertices.
Um triângulo é uma froma com 3 linhas (lados) rectos. Também tem 3 ângulos. Us bicos de um triângulo são chamados vertices.

There are different types of triangles:
Hã diferentes tipos de triângulos:



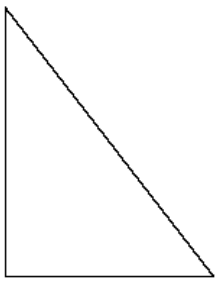
Isosceles
Isósceles

Two sides are the same length. The two angles at the base are equal.
Dois lados têm o mesmo comprimento. Us dois ângulos na base são iguais.



Equilateral
Equilátero

All three angles are equal. All three sides are the same length.
Us três ângulos são iguais. Us três têm o mesmo comprimento.

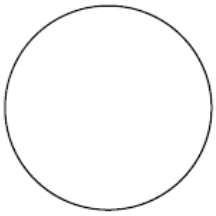


Right-angled
Triângulo Rectângulos

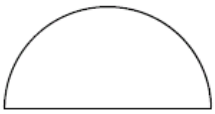
One of the angles measures 90º. The longest side is called hypotenuse.
Um dos ângulos mede 90º. U lado mais longo é chamado hipóteny sa.

The angles of a triangle always add up to 180º.
Us dos ângulos de um triângulo soman sempre 180º.

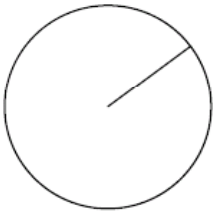
8. Circles - *Circulos*



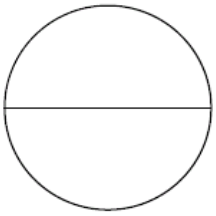
The perimeter of a circle is called the circumference.
U perimetro de m circulo chama-se circunferência.



Half of a circle is called a semi-circle.
Metade de um circulo chama-se semi-circulo.

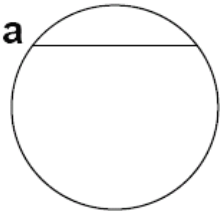


Any line from the center of a circle to the circumference is called radius.
Qualquer linha do centro de um circulo para a circunferêcia cahma-se raio.

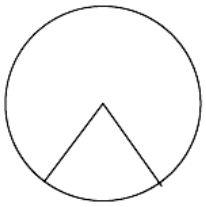


A straight line from one side of a circle to the other side through the center is the diameter.
Uma linha recta que vá de um lado a outes de um circulo através do centro é o diâmetro.

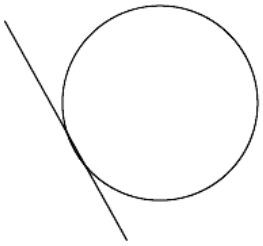
a b



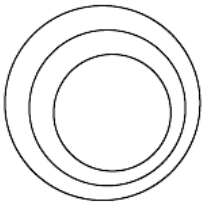
Part of the circumference is an arc. The straight line *ab* is a chord. The a b area is a segment.
Parte de uma circunferência cham-se arco. A àrea a b é um segmento.



An area of a circle enclosed by two radii and an arc is a sector.
A area contida entre dois raios de um circulo de um arco chama-se sector.

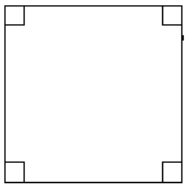


A line which touches the circumference at only one point is a tangent.
A linha que toca a circunferência só dos seus pontos cham-se tangente.



Circles which have the same center are called concentric circles.
Circulos que têm o mesmo centro chamam-se circulos concêntricos

9. Shapes - *Formas*

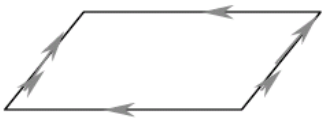


Square

It has four equal sides and four right angles.
Tem quarto lados iguais e quates ângulos rectos.

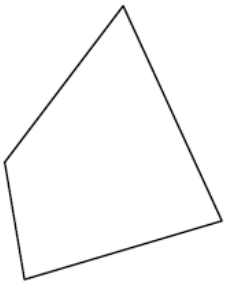
Rectangle
Rectângulo

It has four right angles and opposite sides are equal.
Tem quarto ângulos rectos e os lados opostos são iguais.



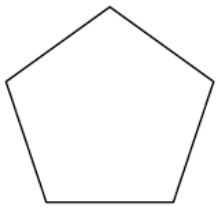
Parallelogram
Paralelograma

Opposite sides are parallel.
***Us lados opostos são paralelos*.**



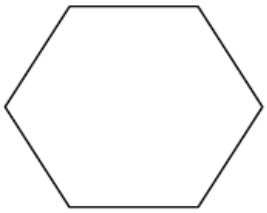
Quadrilateral
Quadrilátero

Any shape with four straight sides.
***Qualguer forma com quarto linhas rectas*.**



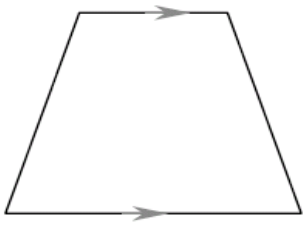
Pentagon
Pentágono

It has five sides and five angles.
***Tem quarto lados e quarto ângulos*.**



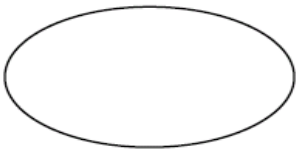
Hexagon
Hexágono

It has six sides and six angles.
***Tem seis lados e seis ângulos*.**



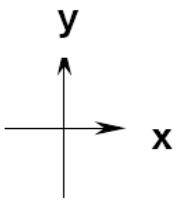
Trapezium
Trapézio

One set of sides is parallel.
Um confunto de lados é paralelo.



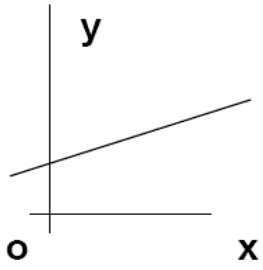
Ellipse
Elipse

10. Graphs - *Gráfico*

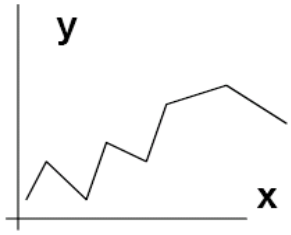


A graph has a vertical axis (y) and a horizontal axis (x).
Um gráfico tem um eixo vertical (y) e um eixo horizontal (x).

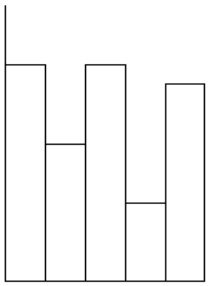
There are many different types of graphs or charts:
***Há vários tipos de gráficos ou tabelas*:**



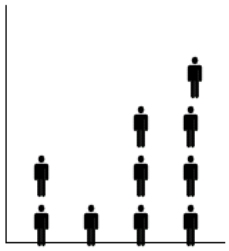
A straight-line graph.
Um gráfico de linha-recta.



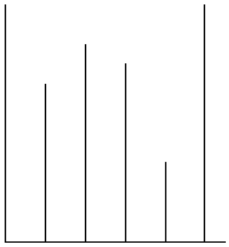
A graph plotting points.
Um gráfico de pontos.



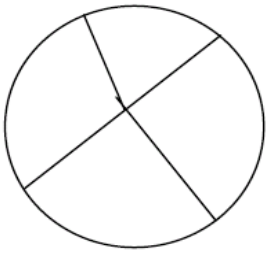
A bar chart or block graph.
Um gráfico de baras.



A pictogram.
Um pictograma.



A column graph.
Um gráfico de colunas.

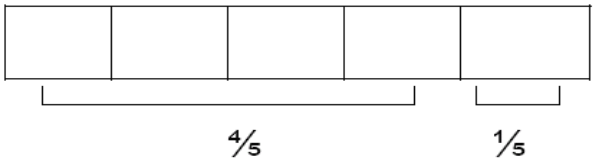


A pie-chart is a circle divided into different sectors.
Um gráfico circular é um circulo dividido em sectores.

11. Fractions - *Fracçao*

A fraction is a part of a whole. ⅘ is a fraction. It may be shown like this:

Uma fracçao è parte do todo. ⅘ é uma fracçao.
Pode ser representada desta forma:



Here is another fraction: ⅔
Aqui está outa fracçao: ⅔

This means two parts out of three. We say two-thirds.
Isto significa duas partes em três. Dit-se dois terços.

The number at the top is called the Numerator.
Um número no topo é chamado de Numerador.

The number at the bottom is called the Denominator.
U número e baixo è chamado Denominador.

This is a mixed number: 3½
Este èum nùmero misto: *3½*

It is made of a whole number and a fraction. It may be written as an Improper Fraction: ~
Éfeito de um número inteiro & de uma fracçao. Pode ser escrita como uma fracçao Imprópria:

3½	=	7/2
mixed number		improper fraction
número misto	=	*fracçao imprópria*

Equivalent (equal) Fraction
Fracçoes Equivalentes (iguais)

½				½			
¼		¼		¼		¼	
⅛	⅛	⅛	⅛	⅛	⅛	⅛	⅛
1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16

12. Decimals - *Décimais*

Parts of a whole number can also be written as decimals:
Partes de um número inteiro podem ser escritas como números décimais.

1/10 is the same as 0.1
1/10 é o mesmo que 0.1

¼ is the same as 0.25
¼ é o mesmo que 0.25

4⅕ is the same as 4.2

4⅕ é o mesmo que 4.2

Percentages
Percentagens

1% is one every 100
1% *é um em cada 100.*

1% is 1p in every pound
1% *é 1p em cada libra* (£)

1% is 1/100
1% *é 1/100*

1% is 0.01
1% *é 0.01*eshte 0.01

Conversion Table
Table de Conversão

	Fracçao	*Décimais*	*Percentagem*
half - *metade*	½	0.5	50%
quarter - *quarto*	¼	0.25	25%
three-quarters - *três quartos*	¾	0.75	75%
One tenth - *uma décima*	1/10	0.1	10%
One fifth - *um quinto*	⅕	0.2	20%
One third *um terço*	⅓	0.33	33 1/3%
Two thirds *dois terços*	⅔	0.67	66 2/3%
One eighth *um oitavo*	⅛	0.125	12 ½

13. Distances - *Distância*

Metric system
Sistema Métrico

mm	-	millimetre	-	*milimetro*
cm	-	centimetre	-	*centrimetro*
m	-	metre	-	*metro*
km	-	kilometre	-	*kilómetro*

10mm = 1cm 100cm = 1m 1000m = 1km

Imperial system
Sistema Imperial

in	-	inch	-	*polegadas*
ft	-	foot	-	*pé*
yd	-	yard	-	*jardas*
mi	-	mile	-	*milha*

12ins = 1ft 3ft = 1yd 1760yds = 1mi

Conversions
Conversors

2½cm ≃ 1in 1m ≃ 1 yd 1km ≃ ⅝ mi

14. Capacity - *Capacidade*

Metric system
Sistema métrico

ml	-	millilitre	-	*milímetro*
cc	-	cubic centimetre	-	*centrímetro cúbico*
l./li	-	litre	-	*litro*

1cc = 1ml 1l = 1000ml

Imperial system
Sistemi imperial

fl.oz	-	fluid ounce	-	*onça líquida*
pt	-	pint	-	*pinto*
gal	-	gallon	-	*galão*

20fl oz = 1 pt
8pts = 1 gal

Conversions
Conversors

1 litre = 1¾ pints
1 litro = 1¾ pintos
1 gal = 4½ litres
1 galao = 4½ litros

15. Weight - *Peso*

Metric system
Sistema metrico

mg.	-	milligram	-	*miligrama*
g	-	gram	-	*grama*
kg	-	kilogram	-	*kilograma*

1000mg = 1g
1000g = 1kg
1000kg = 1 tonne (ton) = *1 tonelada*

Imperial system
Sistema imperial

oz.	-	ounce	-	*onça*
lb.	-	pound	-	*libra*
st.	-	stone	-	*stona*

16oz = 1lb
14lb = 1st

Conversions
Conversors

1oz = 28g
1kg = 2⅓ lb

16. Time - *Tempo*

Units of Time
Unidades de Tempo

s	=	second	=	*segundo*
min	=	*minute*	=	*minuto*
h	=	hour	=	*hora*
wk	=	week	=	*simana*
yr	=	year	=	*ano*
p.a.	=	per year	=	*p.a. – por ano*
60s	=	1min	=	*1 min*
24h	=	1 day	=	*1 dia*
52wks	=	1 year	=	*1 ano*
60mins	=	1 hour	=	
7days	=	1 week	=	*1 dias*
12 months	=	1 year	=	*12 meses*

Calendar Months
Meses do Calendário

30 days has September, April, June and November
30 dias tem Setembro, Abril, Junhjo e Novembro.

All the rest have 31
U resto tem 31

Except February all alone which has 28 days clear and 29 in each year.
Excepto fevereiro e mais nenhum que tem dias ou 29 cada ano bissexto.

17. Temperature - *Temperatura*

100º boiling point = *ponto de fervura*

37º body temperature = *temperatura corporal*

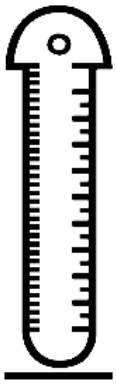
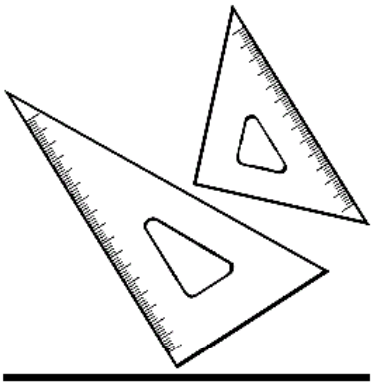
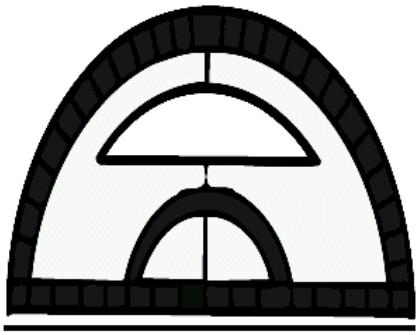
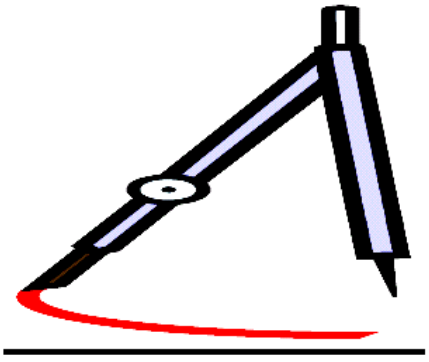
0º freezing point = *ponto de congelamento*

Temperature is usually measured in ºC (degrees Celsius)
A temperatura é geralmente medida em ºC (*graus centigrados*).

Sometimes ºF (Fahrenheit) is used.
As vezes ºF *(Fahrenheit) é também usado*.

0ºC	=	32ºF
100ºC	=	212ºF

18. Instruments - *Instrumentos*

ruler		*régua*
set square		*esquadro*
protractor		*transferidor*
compasses		*compasso*