eTwinning project "4 Countries 4 Maths"

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Mathematical Dictionary

In the following tabel, there are some notions and their definitions. In the first column are the english translations of the notions, in the second column are the definitions, also in english, and in the third column we provide you the notions in romanian. We kindly ask you to complete one of the last three columns, whith the corresponding notions in your own language. This way all of us can find out how sounds the mathematical terminology in the others' languages.

English	Definition	Romanian	French	Italian	Spanish
The parallelogram	- the quadrilateral whose opposite sides are equal in length	Paralelogram	Le parallélogramme	Parallelogramma	Paralelogramo
The diagonal	- a line segment joining two nonconsecutive vertices of a polygon	Diagonala	La diagonale	Diagonale	Diagonal
The height in a	- the distance between two opposite	Inaltimea in	La hauteur d'un parallélogramme	Altezza del parallelogramma	Altura del paralelogramo

parallelogram	sides	paralelogram			
The area of a parallelogram	- the product between the length of the base and the corresponding height	Aria paralelogramului	Une aire	Area del parallelogramma	Área del paralelogramo
The rectangle	- the parallelogram with a right angle	Dreptunghi	Le rectangle	Rettangolo	Rectángulo
The rhombus (or rhomb)	- the parallelogram which has two adjacent sides of the same length	Romb	Le losange	Rombo	Rombo
The square	- the quadrilateral which is both rhombus and rectangle	Patrat	Le carré	Quadrato	Cuadrado
The trapezoid	- the quadrilateral with only one pair of parallel sides	Trapez	Le trapèze	Trapezio	Trapecio
The mid-segment of a trapezoid	- a line segment joining the mid-points of the non-parallel sides in a trapezoid	Linia mijlocie a unui trapez	Le segment joignant les milieux des côtés non parallèles du trapèze	Segmento che unisce i punti medi de due trapezi	La mitad del segmento del trapecio
The height of the trapezoid	- the distance between the parallel sides of a trapezoid	Inaltimea in trapez	La hauteur d'un trapèze	Altezza del trapezio	Altura del trapecio
The area of a trapezoid	- the product between the average of the lengths of the bases and the height of the trapezoid	Aria trapezului	L'aire d'un trapèze	Area del trapezio	Área del trapecio
Thales's theorem	- says that a line parallel with one side of a triangle determines on the other 2 sides proportional line	Teorema lui Thales	Théorème de Thalès	Teorema di Talete	Teorema de Thales

	segments				
Similar triangles	- two triangles are said to be similar if every angle of one triangle has the same measure as the corresponding angle in the other triangle	Triunghiuri asemenea	Les triangles similaires	Triangoli simili	Triángulos semejantes
The fundamental similarity theorem	- says that a line parallel with one side of a triangle determines along with the other 2 sides (or their extensions) a triangle similar with the initial triangle	Teorema fundamentala a asemanarii		Teorema fondamentale della similitudine	Teorema fundamental de semejanza
The theorem of the height	- in a right triangle, the length of the height corresponding to the hypotenuse is the geometric mean of the projections of the catheti on the hypotenuse	Teorema inaltimii		II teorema di Euclide	Teorema de la altura
The theorem of the cathetus	- in a right triangle, the length of one cathetus is the geometric mean of the length of it's projection on the hypotenuse and the length of the hypotenuse	Teorema catetei		I teorema di Euclide	Teorema del cateto
Pythagora's theorem	- in a right triangle, the sum of the squares of the lengths of the catheti is equal to the square of the length of the hypotenuse	Teorema lui Pitagora	Théorème de Pythagore	Teorema di Pitagora	Teorema de Pitágoras
The sine of an	-the ratio of the length of the opposite	Sinusul unui unghi	Sinus d'un angle	Seno di un angolo	Seno de un ángulo

angle The cosine of an angle The tangent of an angle The cotangent of an angle	cathetus to the length of the hypotenuse - the ratio of the length of the adjacent cathetus to the length of the hypotenuse - the ratio of the length of the opposite cathetus to the length of the adjacent cathetus - the ratio of the length of the adjacent cathetus to the length of the opposite cathetus	Cosinusul unui unghi Tangenta unui unghi Cotangenta unui unghi	Cosinus d'un angle Tangente d'un angle Cotangente d'un angle (not in use in French schools for long)	Coseno di un angolo Tangente di un angolo Cotangente di un angolo	Coseno de un ángulo Tangente de un ángulo Cotangente de un ángulo
Regular polygon	- a convex polygon whose edges have the same length and whose interior angles have the same measure	Poligon regulat	Un polygone régulier	Poligono regolare	Polígono regular

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| 1.Ways for determining a plane | 1) any three points that don’t belong to the same line determine a plane
2) a line and an external point determine a plane
3) two parallel lines determine a plane
4) two intersecting lines determine a plane | Determinarea planului | Différentes manières de déterminer un plan. | Modalità di determinazione di un piano | Diferentes formas de determinar un plano |
| 2. Pyramid | A polyhedron with one polygon as | Piramida | Une pyramide | Piramide | Pirámide |

	a base a and all the other faces triangles meeting at a common vertex				
3.Parallel lines	Two lines are parallel if they are in the same plane and have no common points	Drepte paralele	Des droites parallèles de l'espace	Rette parallele	Rectas paralelas
4. Angles with respectively parallel sides	Each side of one an angle is parallel to one side of the other angle	Unghiuri cu laturile respectiv paralele	Angles ayant deux côtés respectivement parallèles	Angoli con i lati rispettivamente paralleli	Ángulos de lados paralelos
5. Positions of a line and a plane	1) The line included in the plane 2) The line intersects the plane 3) The line is parallel to the plane	Pozitile unei drepte fata de un plan	Position relative d'une droite par rapport à un plan.	Posizione di una retta e di un piano	Posiciones relativas de una recta y un plano
6. Perpendicular to the plane	A line is perpendicular to a plane if it is perpendicular to any line included in the plane.	Dreapta perpendiculara pe plan	Droite orthogonale à un plan.	Perpendicolare al piano	Recta perpendicular a un plano
7.Criterion for a perpendicular to a plane	A line is perpendicular to a plane if it is perpendicular to two intersecting lines in that plane	Criteriul de perpendicularitate a unei drepte pe un plan	Critère d'orthogonalité d'une droite par apport à un plan	Criterio di perpendicolarità a un piano	Criterio de perpendicularidad de una recta respecto de un plano
8.Distances in space	distance between two points A and B is equal to the length of the segment AB distance from one point to a line is a the length of the perpendicular	Distante in spatiu	Distances dans l'espace distance entre deux points distance d'un point à une droite	Distanze nello spazio	Distancias en el espacio

	to the line starting from that point distance between two parallel lines equals the distance from a point of one line to the other line the distance from a point to a plane is the length of the perpendicular from that point to that plane the distance between a plane and a parallel line is the length of perpendicular from one point of the line to the plane		distance entre deux droites		
9.Relative positions of two planes	identical planes: if three points are common intesecting planes: they have a common line parallel planes: they have no common point	Pozitiile relative a doua plane	Position relative de deux plans: Plans confondus Plans sécants Plans parallèles	Posizioni relative di due piani	Posiciones relativas de dos planos
10.Criterion for parallel planes	If two intersecting lines from one plane are parallel to two intersecting lines from the other plane	Criteriul de paralelism pentru doua plane	Critère de parallélisme de deux plans.	Criterio di parallelismo dei piani	Criterios de paralelismo de planos
11.Orthogonal projections	The projection of a point on a line is the intersection of the perpendicular from that point on the given line line and the latter	Proiectii ortogonale	Projections orthogonales	Proiezioni ortogonali	Proyección octogonal

12.Angle between a line and a plane	The angle between a line and a plane is the line angle formed bythe line and its projection on the plane	Unghiul dintre o dreapta si un plan	Angle entre plan et droite.	Angoli tra una retta e un piano	Ángulo entre una recta y un plano
13.Cube	A solid consisting of six square faces	Cub	Cube	Cubo	Cubo
14. Dihedral angle	The angle between two intersecting planes	Unghi diedru	Angle entre deux plans (angle dihédrale, not in use in French schools)	Angoli diedri	Ángulo diédrico
15. Cross section	The plane figure obtained by a intersecting a solid with a plane.	Sectiune	Section d'un solide	Sezione di un solido	Sección transversal

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The natural numbers' set	N = {0, 1, 2, 3,…,n,…}	Multimea numerelor naturale	Ensemble des	Insieme dei numeri naturali	Conjunto de los números naturales

			nombres entiers naturels		
The set integers numbers	Z = {…-3,-2,-1,0,1 ,2, 3}	Multimea numerelor intregi	Ensemble des nombres entiers relatifs	Insieme dei numeri interi	Conjunto de losnúmeros enteros
The rational numbers' set	A rational number can be expressed by a fraction	Multimea numerelor rationale	Ensemble des nombres rationnels	Insieme dei numeri nazionali	Conjunto de los números racionales
The real numbers' set	The set of all the numbers from minus infinity and plus infinity	Multimea numerelor reale	Ensemble des nombres réels.	Insieme dei numeri reali	Conjunto de los números reales
The empty set	The set without any element	Multimea vida	Ensemble vide	Insiemevuoto	Vacío ∅
The greatest common divisor	The biggest number that divides all the given numbers	Cel mai mare divizor comun	PGCD: plus grand diviseur commun	Massimo comune divisore (M.C.D.)	Máximo Común Divisor
The smallest common multiple	The smallest number that all the given numbers divide	Cel mai mic multiplu comun	PPCM: plus petit multiple commun	Minimo comune multiplo (m.c.m.)	Mínimo Común Múltiplo
Module	The absolute value of the number	Modul.	Valeur absolue d'un réel	Modulo o valore assoluto	Módulo

			(module d'un nombre complexe)		
Hypotenuse	The longest side of a right angled triangle	Ipotenuza	hypothénuse	Ipotenusa	Hipotenusa
Equations	sentences with a range of formats ax + b = 0	Ecuatii	Une équation	Equazioni	Ecuaciones
Arithmetic mean	Arithmetic average of two or more rational numbers is a rational number obtained by dividing the sum of the numbers by their number Eg: m_3 = (a + b + c): 3	Media aritmetica	La moyenne arithmétique	Media aritimetica	Media aritmética
Perpendicular bisector	Straight line passing through the midpoint of a side and being perpendicular to it	Mediatoare	La médiatrice	Asse	Mediatriz
Altitude	Straight line through a vertex and perpendicular to the opposite side	Inaltime	La hauteur	Altezza	Altura
Supplementary angles	Angles that add up to 180 degrees	Unghiuri suplementare	Des angles supplémentaires	Angoli supplementari	Ángulo suplementario
Complementary angles	Angles that add up to 90 degrees	Unghiuri complementare	Des angles complémentaires	Angoli complementari	Ángulo complementario
Equilateral	Triangle in which all sides have the	Triunghi echilateral	Le triangle	Triangolo equilatero	Triángulo equilátero

triangle	same length		équilatéral		
Congruent triangles	Triangles that have exactly the same size and shape	Triunghiuri congruente	Des triangles isométriques	Triangoli congruenti	Triángulos semejantes

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Irrational numbers	Irrational numbers are the numbers present in R but not in Q (R-Q)	Numere irationale	Nombres irrationnels	Numeri irrazionali	Números irracionales
The integer part of a number	The integer part of a number is the largest integer that is less than or equal to that number	Partea intreaga a unui numar	La partie entière d'un nombre	La parte intera di un numero	La parte entera de un número
The fractional part of a number	The fractional part of a number “x” is x - [the number's integer part]	Partea fractionara a unui numar		La parte frazionaria di un numero	La parte fraccionaria de un número
Rounding a number	The approximation which is closer to the given number is called rounding	Aproximarea prin rotunjire	Prendre l'arrondi d'un nombre (arrondir un nombre)	Arrotondamento di un numero	Redondeo de un número
Numbers interval	Interval (a;b) is all the numbers that are between “a” and “b” (if it's a closed interval “a” and “b” are also included)	Intervale de numere	Un intervalle	Intervallo de numeri	Intervalo de números reales
Square root common factor	$a\sqrt{c} + b\sqrt{c} = \sqrt{c}(a+b)$	Factorul comun la radicali	Mettre la racine carrée en facteur	Raccoglimento a fattore comune di	Sacar factor común con raíces

				una radice quadrata	cuadradas
Rationalizing the denominator	If denominator is - $\sqrt{a}$ amplify with $\sqrt{a}$ - $a\sqrt{b}$ amplify with $\sqrt{b}$ - $\sqrt{a} + \sqrt{b}$ amplify with $\sqrt{a} - \sqrt{b}$ -$\sqrt{a} - \sqrt{b}$ amplify with $\sqrt{a} + \sqrt{b}$	Rationalizarea numitorului	Enlever la racine carrée au dénominateur	Razionalizzare il denominatore	Racionalizar el denominador
Algebraic sum	The aggregate of two or more numbers or quantities taken with regard to their signs, as + or -, according to the rules of addition in algebra .	Suma algebrica	La somme	Somma algebrica	Suma algebraica
Binominal formulas	$(a+b)^2 = a^2 + 2ab + b^2$ $(a-b)^2 = a^2 - 2ab + b^2$ $(a+b)(a-b) = a^{2-} b^2$	Formule de calcul prescurtat	Les identités remarquables	Prodotti notevoli	Identidades notables
Adding or substracting real numbers fractions represented by letters	1 .We add (or substract) only two fractions with the same denominator 2. We then calculate the numerators and copy the denominator	Adunarea si scaderea fractiilor cu numere reale reprezentate prin litere	Calcul algébrique: somme et différence	Aggiungendo o sottraendo frazioni di numeri reali rappresentati da lettere	Sumar o restar fracciones de números reales representados por letras
Multiplying or dividing real numbers fractions represented by letters	1. We decompose the numerators and denominators if we can 2. We simplify every fraction 3.We multiply what's left	Inmultirea si impartirea fractiilor cu numere reale reprezentate prin litere	Calcul algébrique: produits et quotients	Moltipliucando o dividendo numeri,frazioni reali rappresentati da lettere	Multiplicar o dividir fracciones de números reales representados por letras