



SARDEGNA SPEAKS ENGLISH
LINEA DI INTERVENTO 1
REALIZZAZIONE DI PROGETTI PER L'APPRENDIMENTO
DELL'INGLESE ATTRAVERSO LA METODOLOGIA CLIL



Liceo Scientifico "Europa Unita" – Porto Torres

On line training

SOLUTION

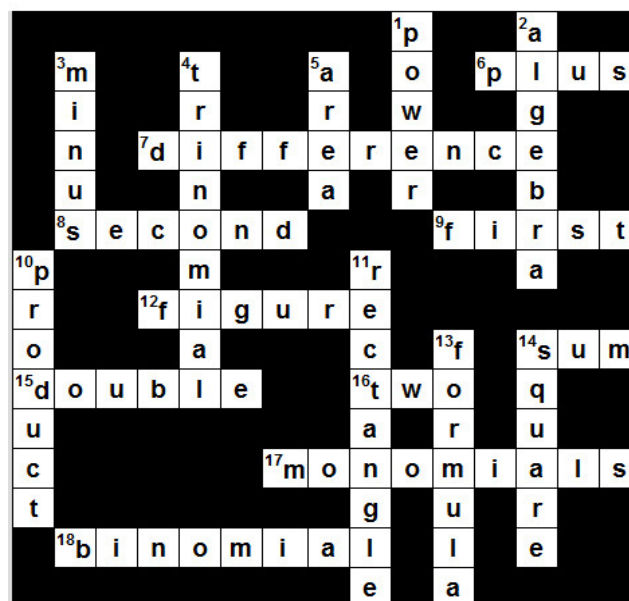
Module 1

- [Squared binomials](#)
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Squared binomials

The square of a **binomial** is a polynomial in which there are no **like** terms. It is composed of the **square** of the first monomial plus the **double** product of the **first** monomial and the second one **plus** the second monomial raised to the **second** power. Therefore the **formula** of how to square a binomial is the following: " $(a + b)^2 = a^2 + 2ab + b^2$ ", in other words the **result** of a squared binomial is a **trinomial**.

Maths Crossword





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Matching exercise

Square of binomial (formula) $(a + b)^2 = a^2 + 2ab + b^2$:-)

$x^2 - 8x + 16$ is the solution of $(4 - x)^2$:-)

The difference of two squares $(a + b)(a - b) = a^2 - b^2$:-)

$9 - x^2$ is the solution of $(3 - x)(3 + x)$:-)

$x^2 - 1 =$ $(x + 1)(x - 1)$:-)

$(5x - 4)^2$ $25x^2 - 40x + 16$:-)

Module 2

- [Binomial cube \(cloze\)](#)
- [Matching exercise 1](#)
- [Matching exercise 2](#)
- [Scrambled sentence 1](#)
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Binomial cube

A binomial **raised** to the third power can be represented by a **cube** composed of **eight** blocks which fit together in a binomial **pattern**, representing the cube of two numbers, $(a + b)$.

Each **side** of the cube has the same dimensions and pattern, and represents the **square** of $(a + b)$. The **formula** of a binomial cube is the first **term** raised to the third power, plus the **triple** product of the first term squared and the second term, plus the triple product of the second term squared and the first term, plus the second term raised to the **third** power.



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Matching exercise 1

How to cube a binomial (formula)	$a^3 + 3a^2b + 3ab^2 + b^3$
$8x^3 - 36x^2y - 27y^3 + 54xy^2$ is the solution of	$(2x - 3y)^3$
The square of a trinomial (formula)	$a^2 + b^2 + c^2 + 2ab + 2ac + 2bc$
$4x^2 - 4x + 1/4y^2 - 2xy + 1 + y$ is the solution of	$(2x - 1/2y - 1)^2$
$(1/3x + 3)^3$ equals	$1/27x^3 + 27 + 9x + x^2$
$(5x - 4)^2$	$25x^2 - 40x + 16$
$(1/3x - 3)^3$ equals	$1/27x^3 - x^2 + 9x - 27$

Matching exercise 2

How to cube a binomial (formula)	$3xy^2 + x^3 - y^3 - 3x^2y$
$x^3 - 9x^2y - 27y^3 + 27xy^2$ is the solution of	$(x - 3y)^3$
The square of a trinomial (formula)	$x^2 + y^2 + z^2 + 2xz - 2yz - 2zy$
$4x^2 + 4x + 1/4y^2 - 2xy + 1 - y$ is the solution of	$(2x - 1/2y + 1)^2$
$(3x + 1)^3$ equals	$27x^3 + 1 + 9x + 27x^2$
$(x - 3)^3$ equals	$x^3 - 9x^2 + 27x - 27$



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Write Mathematical sentences 1

the square of a trinomial	equals	the square	of the first term plus	the square of the second term	plus the square of
the third term plus	the double product of	the first term and	the second one plus	the double	product of the
first term and the third one	plus the double product	of the second term	and the third one		

Write Mathematical sentences 2

The formula of	a binomial cube	is the first term	raised to the third	power plus the	triple product
of the first term squared	and the second term plus	the triple product of	the second term squared		
and the first term	plus the second term	raised to the third power			

These exercises were created with

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