7. <u>**CONCEPTOS BÁSICOS**</u>. Hallar la correspondencia entre cada palabra y su definición.

	DENOMINATOR	**A**	Value that a function or expression approaches as the domain variable(s) approach a specific value.
	EQUATION	**B**	Tangent of the angle made by a straight line with the x-axis.
	FUNCTION	**C**	Science of numbers and their operations, interrelations, combi–nations, generalizations, and abstractions and of space configu–rations and their structure, measurement, transformations, and generalizations.
	LIMIT	**D**	Result of dividing two numbers or expressions.
	MATHEMATICS	**E**	Relation for which each element of the domain corresponds to exactly one element of the range.
	NUMERATOR	**F**	Quantity that can change or that may take on different values.
	PARABOLA	**G**	Part of a fraction that is below the line and that functions as the divisor of the numerator.
	QUOTIENT	**H**	Part of a fraction that is above the line and signifies the number to be divided by the denominator.
	SLOPE	**I**	Mathematical sentence built from expressions using one or more equal signs.
	VARIABLE	**J**	Locus of points such that the distance to the focus equals the distance to the directrix.

8. <u>**TÍTULO.**</u> Seleccione el mejor título para el texto.

_____ **a**. Derivatization   _____ **c**. Derivative

_____ **b**. Derivable   _____ **d**. Derivation

9. <u>**IDEA PRINCIPAL**</u>. Indique cuál oración expresa más acabadamente la idea principal del texto.

_____ **a**. The slope is often expressed in Cartesian terms.

_____ **b**. The change in notation is convenient for advancing from the idea of the slope of a line to the more general concept of the derivative of a function.

_____ **c**. A limiting process is used whereby the second point is not fixed but specified by a variable.

_____ **d**. The derivative is the limit of the ratio of the change in a function to the corresponding change in its independent variable as the latter change approaches zero.

10. <u>FUNCIONES DEL LENGUAJE</u>. <u>Identifique y transcriba el nexo según la referencia de</u> <u>renglón dada. Indique la relación lógica, el equivalente en español y las ideas relacionadas.</u>

1. Renglón 18	Nexo lógico	Rel. Lógica	Equivalente

Ideas relacionadas

Idea 1:

_____
_____
_____

Idea 2:

_____
_____
_____

2. Renglón 25	Nexo lógico	Rel. Lógica	Equivalente

Ideas relacionadas

Idea 1:

_____
_____
_____

Idea 2:

_____
_____
_____

3. Renglón 36	Nexo lógico	Rel. Lógica	Equivalente

Ideas relacionadas

Idea 1:

_____
_____
_____

Idea 2:

_____
_____
_____

11. <u>FUNCIONES COMUNICATIVAS</u>.

a. <u>Indique la función comunicativa existente en los renglones 26/27.</u>

☐ DESCRIPCIÓN   ☐ CLASIFICACIÓN   ☐ INSTRUCCIÓN

(Tache lo que no corresponda)

¿Qué se   describe?
         clasifica?   _____
         instruye?   _____

b. <u>Indique la función comunicativa existente en los renglones 32/35.</u>

☐ DEFINICIÓN   ☐ COMPARACIÓN   ☐ NARRACIÓN

(Tache lo que no corresponda)

¿Qué se   define?
         compara?   _____
         narra?   _____

12. <u>CLOZE</u>. Complete el texto con las palabras dadas.

approximation	calculus	chosen	dependent	function
instantaneous	linear	measures	point	variable

The derivative of a _____ of a real variable measures the sensitivity to change of the function value (output value) with respect to a change in its argument (input value). Derivatives are a fundamental tool of _____. For example, the derivative of the position of a moving object with respect to time is the object velocity: this _____ how quickly the position of the object changes when time advances.

The derivative of a function of a single variable at a _____ input value, when it exists, is the slope of the tangent line to the graph of the function at that _____. The tangent line is the best linear approximation of the function near that input value. For this reason, the derivative is often described as the " _____ rate of change", the ratio of the instantaneous change in the dependent _____ to that of the independent variable.

Derivatives may be generalized to functions of several real variables. In this general–ization, the derivative is reinterpreted as a _____ transformation whose graph is the best linear _____ to the graph of the original function. The Jacobian matrix is the matrix that represents this linear transformation with respect to the basis given by the choice of independent and _____ variables. It can be calculated in terms of the partial derivatives with respect to the independent variables.