

**INTRODUCCIÓN AL CÁLCULO-MA611- SEMINARIO EPE**

**Semana Nro. 1 Sesión 1**

**Repaso de Temas Previos**

**Repaso de temas previos para el desarrollo del curso.**

**Logro de la sesión:**

Al finalizar la sesión, estarás preparado para:

Resolver ecuaciones de primer grado y segundo grado, determinar la utilidad de una determinada venta, operar con expresiones numéricas y algebraicas, graficar una función lineal indicando sus interceptos y relacionar costo, ingreso y utilidad en contextos de la administración y la economía.

**Ecuación Lineal: *ax* + *b* = 0, C.S. = { -*b/a* }**

1. Calcule el valor de *x*, a partir de la ecuación:

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1. Resuelve la ecuación:

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1. Las instrucciones para un trabajo en madera especifican que se requieren tres piezas de dicho material. La más larga de ellas debe tener el doble de longitud que la de tamaño medio y la más corta debe ser 10 pulgadas más corta que la mediana. Juan Prado posee una pieza de 70 pulgadas que quiere utilizar para dicho trabajo. ¿De qué longitud debe ser cada pieza?

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1. Se colocará una cerca alrededor de un terreno rectangular de modo que el área cercada sea de 800 m2 y el largo del terreno sea el doble de su ancho. Determine el número de metros de cerca a utilizar.

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1. Recuerde: Precio de Venta: ;

Venden un automóvil a S/ 2 750 ganando el 25% del costo. ¿Cuál fue el costo del automóvil?

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1. **Teoría Exponencial:**

Efectúe las siguientes operaciones:

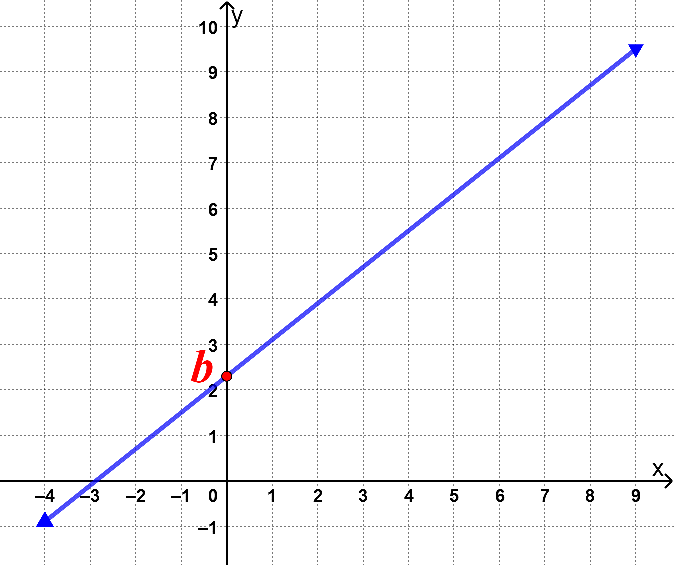
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1. Calcule el valor de en la siguiente igualdad

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**Ecuación de la recta:**



La ecuación de una recta de pendiente *m* y ordenada en el origen *b*, es:

***y = m x + b***

donde, “*b*” es la ordenada del punto de intersección de la recta con el eje y.

1. Grafique la recta: *.*  Indique los intercepto con los ejes coordenados.

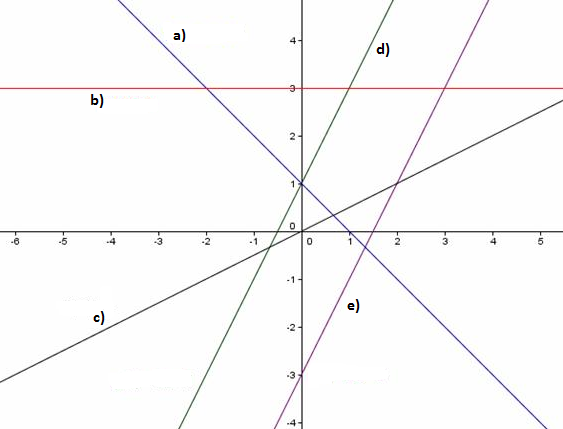
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1. Determine la pendiente y la ordenada en el origen de la recta

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1. Relacione las siguientes ecuaciones con las gráficas de las rectas representadas con las letras a), b), c) d) y e)

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**Ingreso, Costo Total y Utilidad.**

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| Costo Total  número de unidades producidas. | Ingreso:  número de unidades vendidas. | Utilidad:  número de unidades producidas y vendidas. |

1. El costo e ingreso (ambos en dólares), al vender *x* artículos están dados por:

***C*(*q*)= 15*q*+ 450 e *I*(*q*)= 25*q***

Si en un periodo se han vendido 300 artículo. ¿Cuál fue la utilidad?

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**REFLEXIÓN**

1. Para graficar una recta se necesita …………….….como mínimo.
2. Si se conoce que el costo e ingreso están dados por *C*(*q*)= 15*q*+ 200 e *I*(*q*)= 60*q* entonces, ¿la utilidad será *U*(*q*)= 45*q* +200?