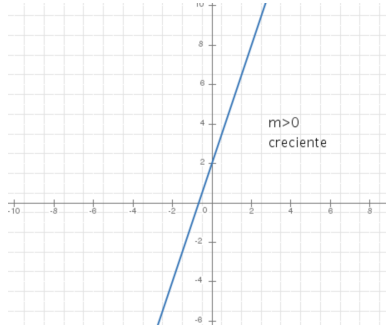


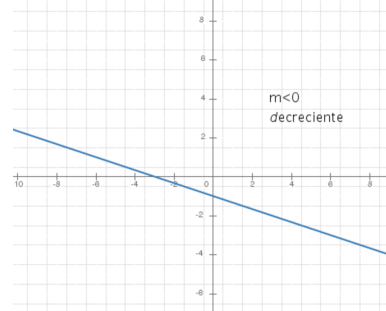
FUNCIONES ELEMENTALES Y SUS TRASLACIONES:

1. LINEAL: $y = mx + n$

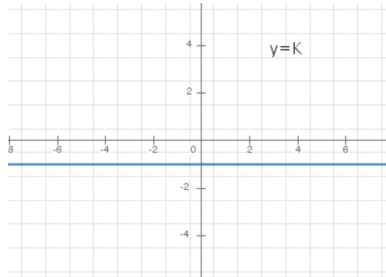
Pendiente positiva



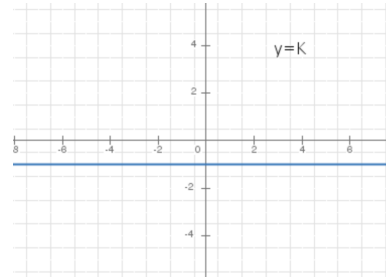
Pendiente negativa



Rectas paralelas al eje X ($y=0$)

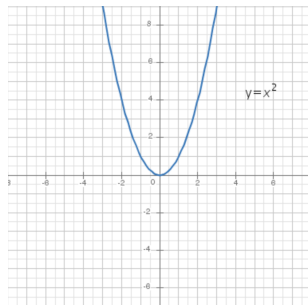


Rectas paralelas al eje Y ($x=0$)

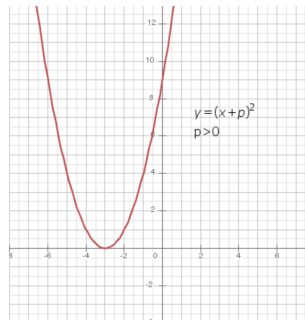


2. PARÁBOLAS O CUADRÁTICAS: $y = (x + p)^2 + b$

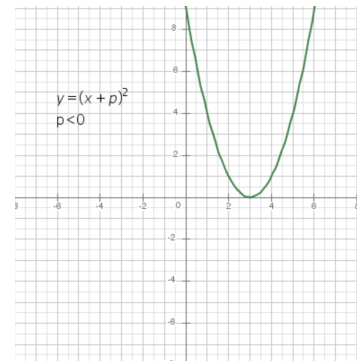
Función de referencia:



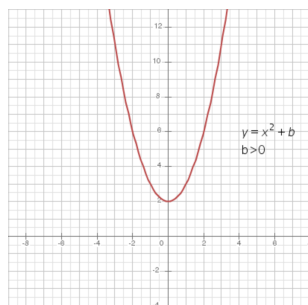
p unidades a la izquierda:



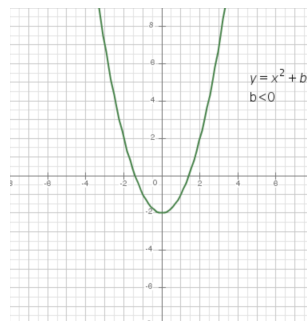
p unidades a la derecha:



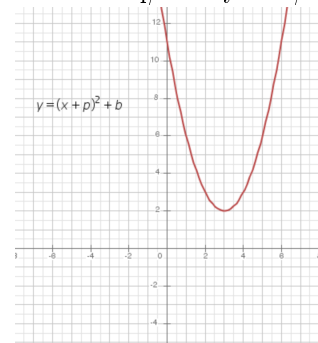
b unidades arriba:



b unidades abajo:

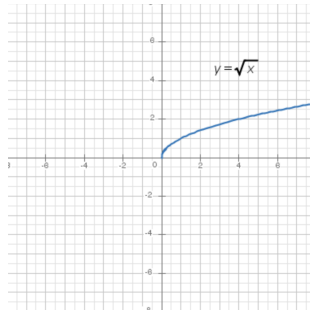


p unidades izq/dcha y b ar/ab:

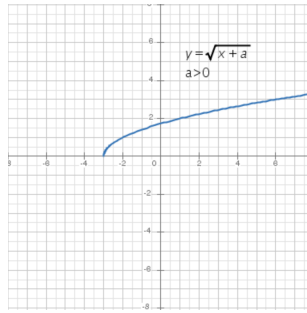


3. RADICALES: $y = \sqrt{x + a} + b$

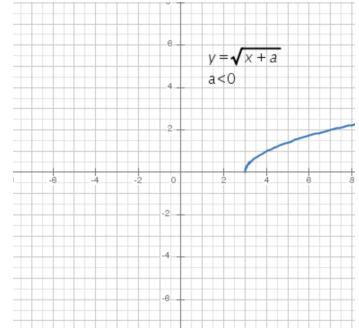
Función de referencia:



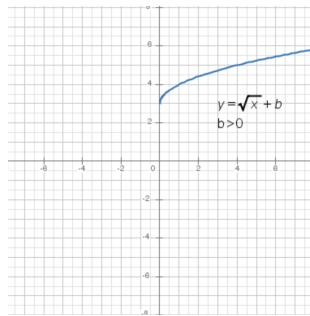
a unidades a la izquierda:



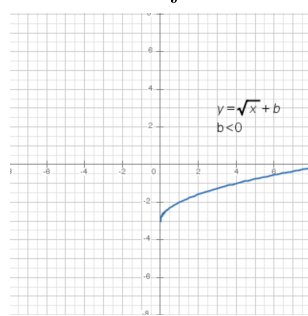
a unidades a la derecha:



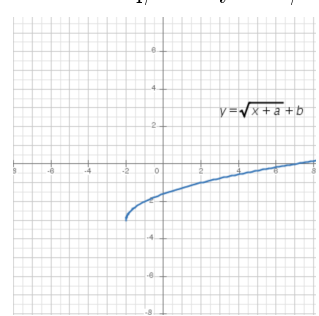
b unidades arriba:



b unidades abajo:

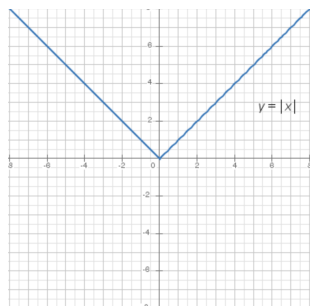


a unidades izq/dcha y b ar/ab:

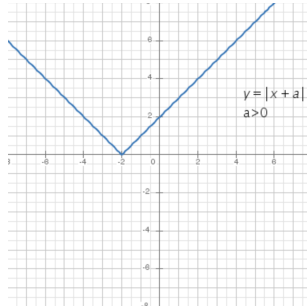


4. VALOR ABSOLUTO: $y = |x + a| + b$

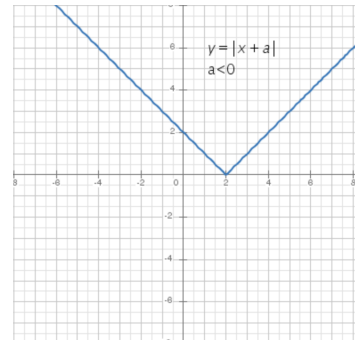
Función de referencia:



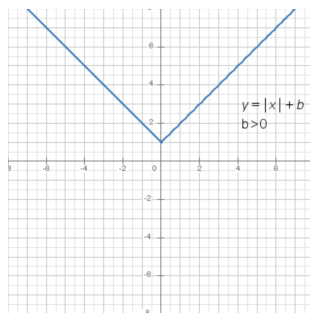
a unidades a la izquierda:



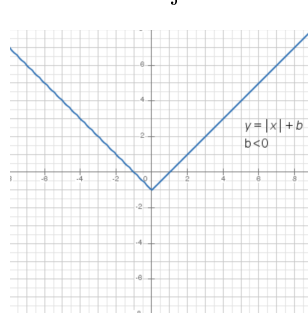
a unidades a la derecha:



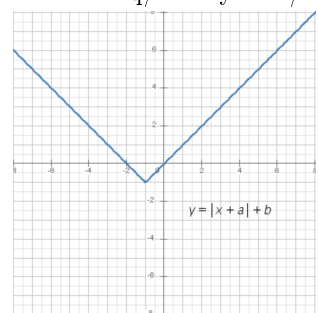
b unidades arriba:



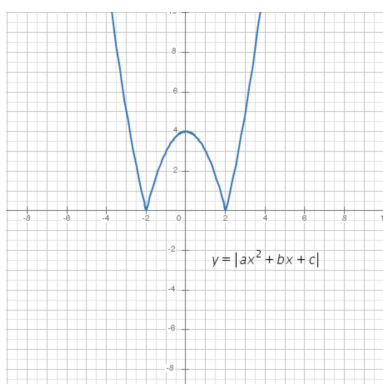
b unidades abajo:



a unidades izq/dcha y b ar/ab:

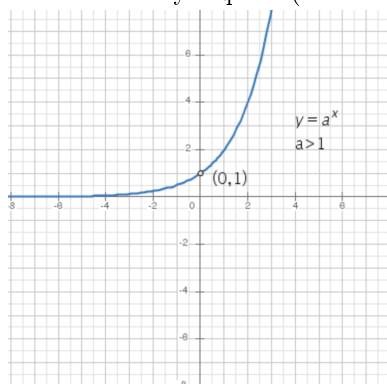


Valor absoluto cuadráticas:

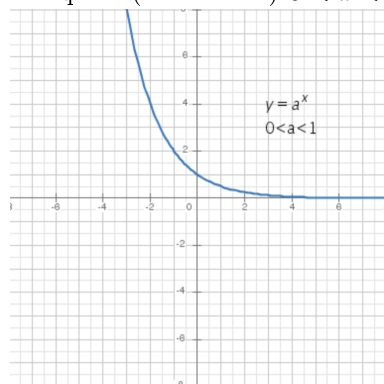


5. EXPONENCIALES: $y = a^x$

La base es mayor que 1 (creciente) $a > 1$:

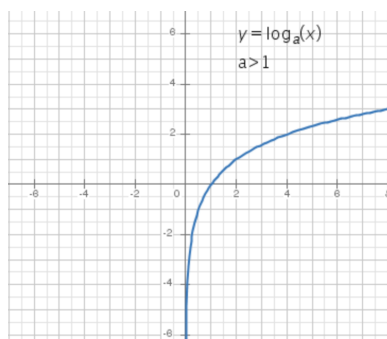


La base es menor que 1 (decreciente) $0 < a < 1$:

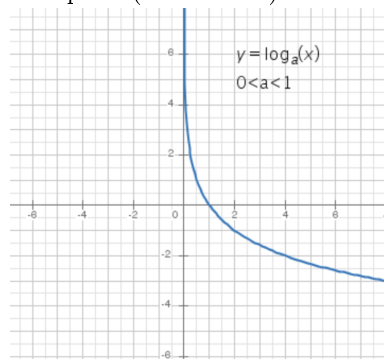


6. LOGARÍTMICAS: $y = \log_a x$

La base es mayor que 1 (creciente) $a > 1$:



La base es menor que 1 (decreciente) $0 < a < 1$:

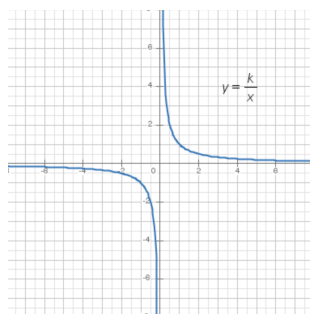


7. PROPORCIONALIDAD INVERSA: $y = \frac{k}{x+a} + b$

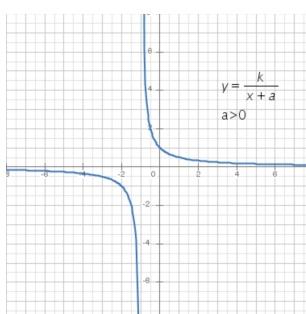
Tienen siempre una asíntota vertical en $x = a$ y asíntota horizontal en $y = b$:

Cuando $k > 0$ (decreciente)

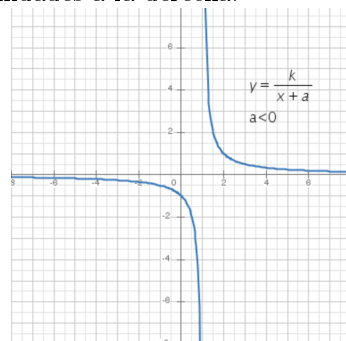
Función de referencia:



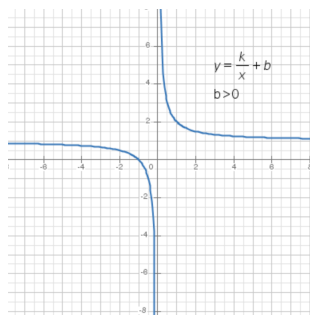
a unidades a la izquierda:



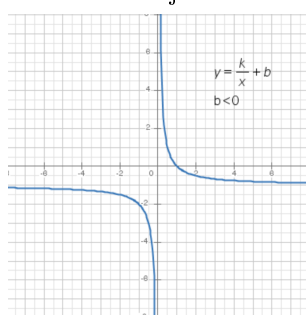
a unidades a la derecha:



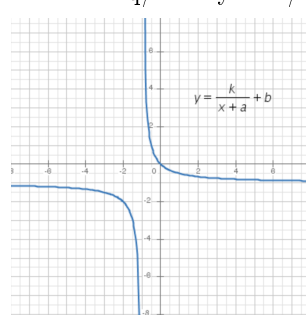
b unidades arriba:



b unidades abajo:

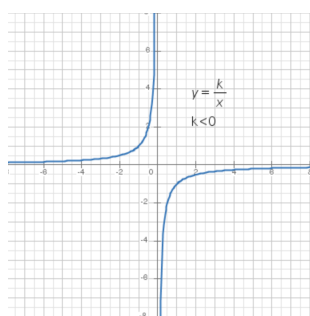


a unidades izq/dcha y b ar/ab:

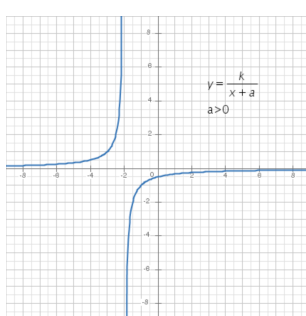


Cuando $k < 0$ (creciente)

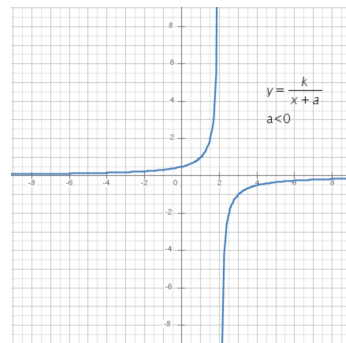
Función de referencia:



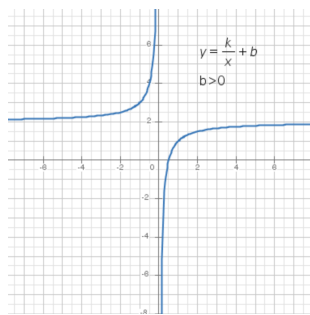
a unidades a la izquierda:



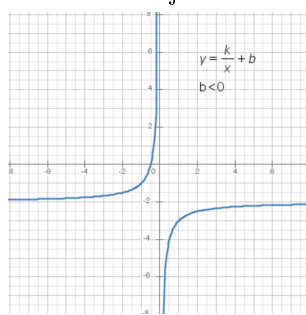
a unidades a la derecha:



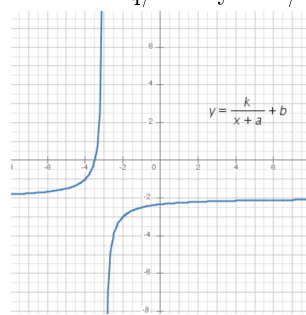
b unidades arriba:



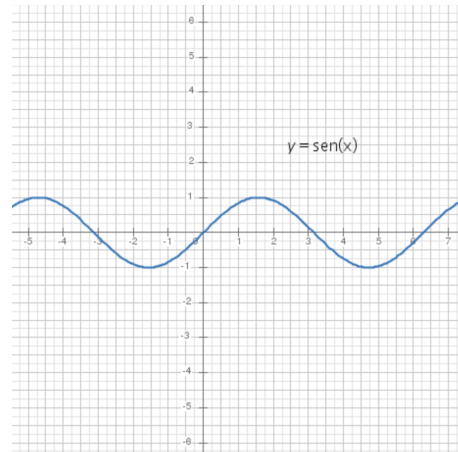
b unidades abajo:



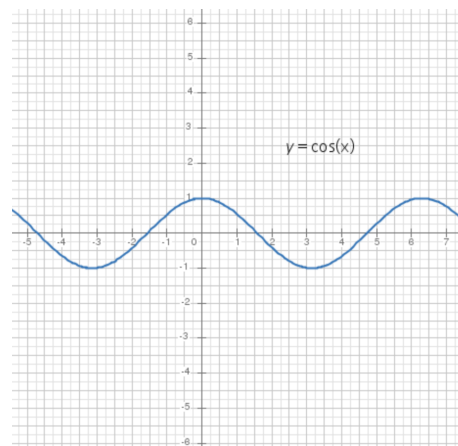
a unidades izq/dcha y b ar/ab:



8. TIPO SENO: $y = \text{sen}x$



9. TIPO COSENO: $y = \text{cos}x$



10. TIPO TANGENTE: $y = \text{tg}x$

