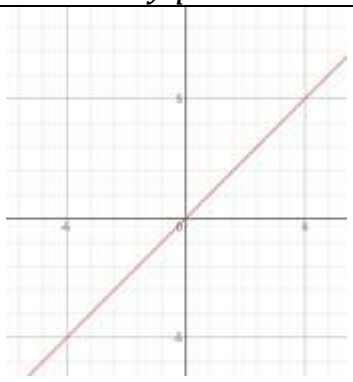
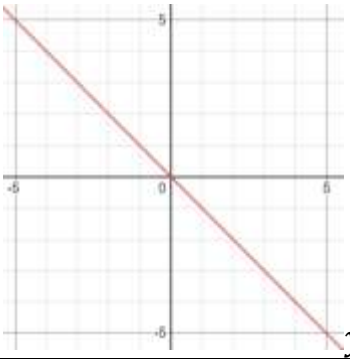
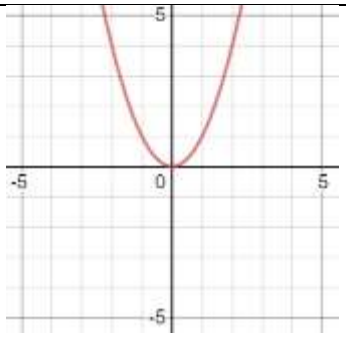
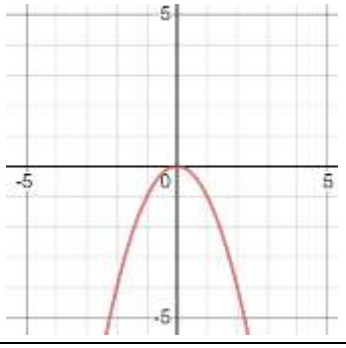
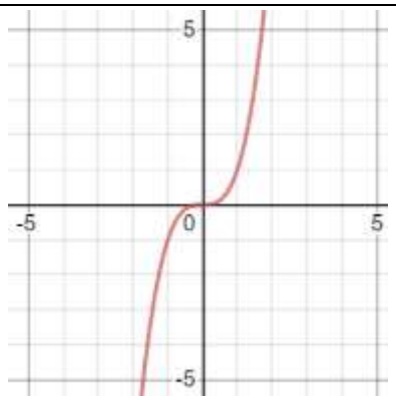
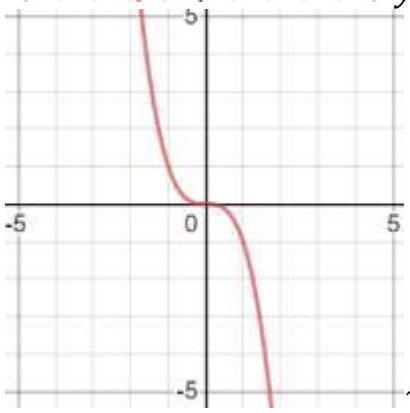
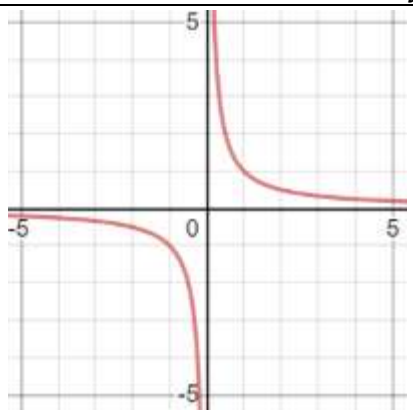
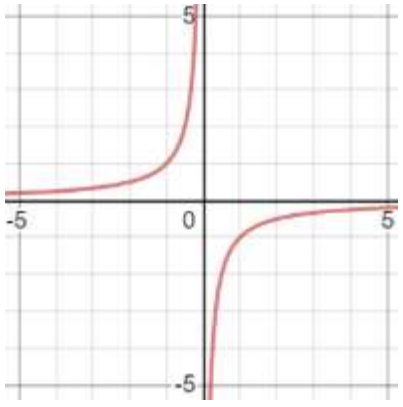
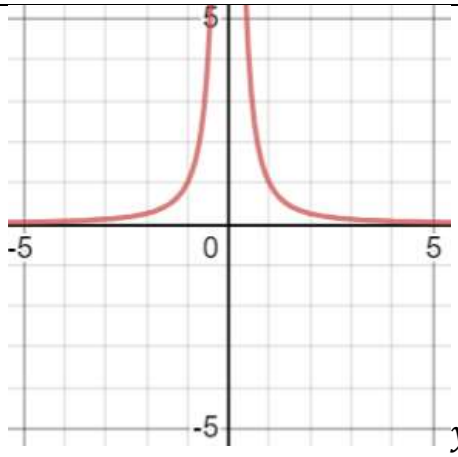
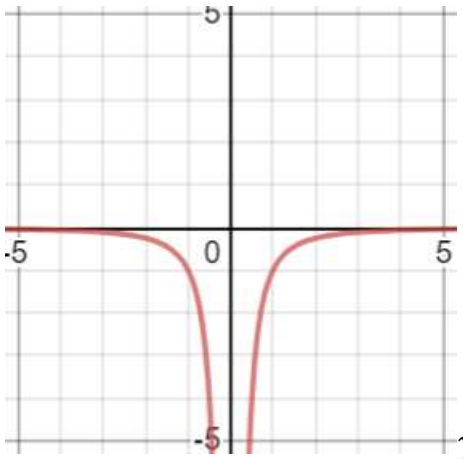
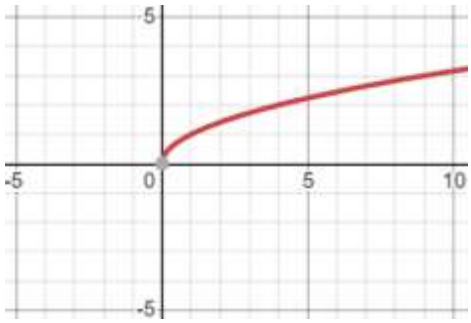
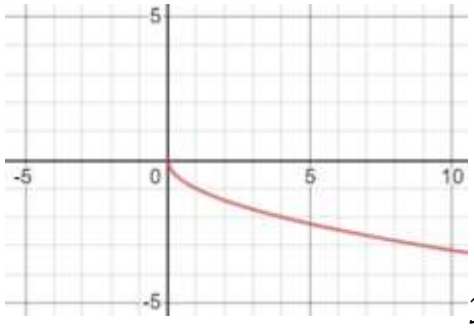
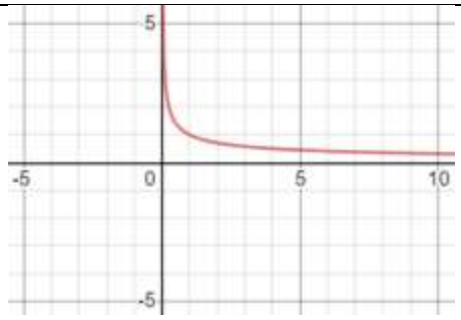
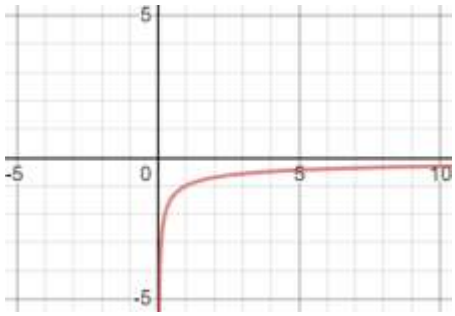
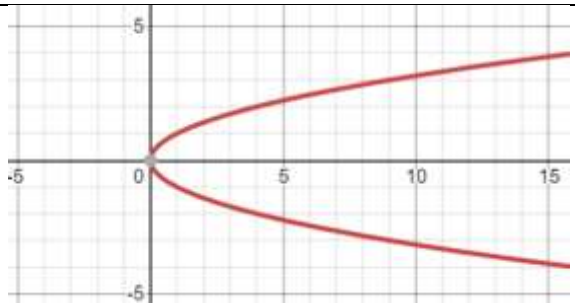
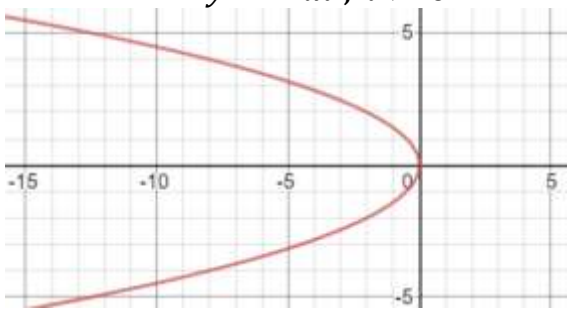
Further Coordinates Geometry

1	General Equation of circle	$(x-a)^2+(y-b)^2=r^2$ $Center\ of\ Circle=(a,b)$ $radius=r$ $Any\ point\ on\ circle=(x,y)$
2	Curve Equation $y=ax^n$ $n=1$	 $y=ax$  $y=-ax$
	$y=ax^2$ $n=2$	 $y=ax^2$  $y=-ax^2$

	$y = ax^3$ $n = 3$	 $y = ax^3$  $y = -ax^3$
	$y = ax^{-1} = \frac{a}{x}$ $n = -1$	 $y = \frac{a}{x}$  $y = -\frac{a}{x}$

	$y = ax^{-2} = \frac{a}{x^2}$ $n = -2$	 $y = \frac{a}{x^2}$  $y = \frac{-a}{x^2}$
	$y = ax^{\frac{1}{2}} = a\sqrt{x}$ $n = \frac{1}{2}$	 $y = a\sqrt{x}$  $y = -a\sqrt{x}$
	$y = ax^{-\frac{1}{2}}$	

		 $y = ax^{-\frac{1}{2}}$  $y = -ax^{-\frac{1}{2}}$
3	$y^2 = kx$	 $y^2 = kx\ , k > 0$  $y^2 = kx\ , k < 0$