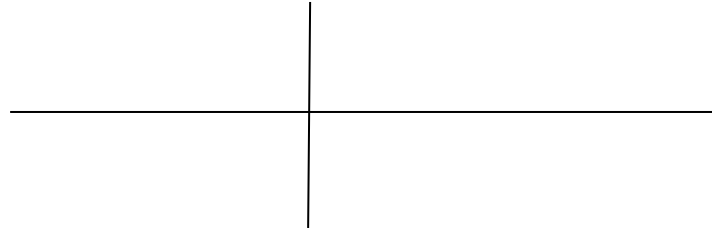


Graph the following functions.

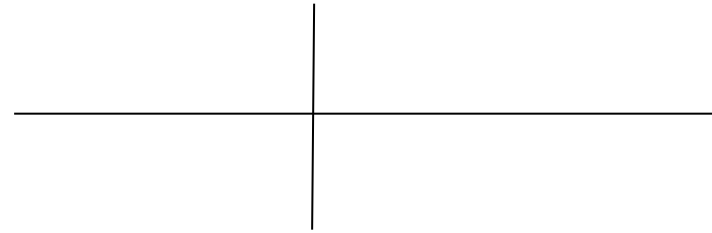
$$1) y = 4 \cos\left(\theta + \frac{\pi}{4}\right)$$

Period	Multiply	Notch	Add	Phase Shift	Equals	Point on x-axis	
	•	(0)	+		=		This is your starting point
	•	$\left(\frac{1}{4}\right)$	+		=		1 <sup>st</sup> notch
	•	$\left(\frac{1}{2}\right)$	+		=		2 <sup>nd</sup> notch
	•	$\left(\frac{3}{4}\right)$	+		=		3 <sup>rd</sup> notch
	•	$\left(\frac{4}{4}\right)$	+		=		4 <sup>th</sup> notch and ending point for one period



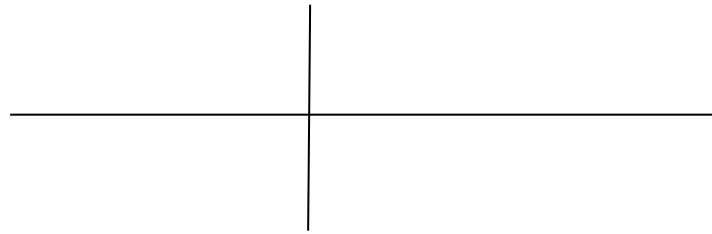
$$2) y = \frac{3}{5} \sin\left(\frac{\theta}{4} + 2\pi\right)$$

Period	Multiply	Notch	Add	Phase Shift	Equals	Point on x-axis	
	•	(0)	+		=		This is your starting point
	•	$\left(\frac{1}{4}\right)$	+		=		1 <sup>st</sup> notch
	•	$\left(\frac{1}{2}\right)$	+		=		2 <sup>nd</sup> notch
	•	$\left(\frac{3}{4}\right)$	+		=		3 <sup>rd</sup> notch
	•	$\left(\frac{4}{4}\right)$	+		=		4 <sup>th</sup> notch and ending point for one period



$$3) y = -2 \sin(2\theta) + 4$$

Period	Multiply	Notch	Add	Phase Shift	Equals	Point on x-axis	
	•	(0)	+		=		This is your starting point
	•	$\left(\frac{1}{4}\right)$	+		=		1 <sup>st</sup> notch
	•	$\left(\frac{1}{2}\right)$	+		=		2 <sup>nd</sup> notch
	•	$\left(\frac{3}{4}\right)$	+		=		3 <sup>rd</sup> notch
	•	$\left(\frac{4}{4}\right)$	+		=		4 <sup>th</sup> notch and ending point for one period



$$4) y = -\cos\left(\frac{\theta}{2} + \pi\right)$$

Period	Multiply	Notch	Add	Phase Shift	Equals	Point on x-axis	
	•	(0)	+		=		This is your starting point
	•	$\left(\frac{1}{4}\right)$	+		=		1 <sup>st</sup> notch
	•	$\left(\frac{1}{2}\right)$	+		=		2 <sup>nd</sup> notch
	•	$\left(\frac{3}{4}\right)$	+		=		3 <sup>rd</sup> notch
	•	$\left(\frac{4}{4}\right)$	+		=		4 <sup>th</sup> notch and ending point for one period

