	A	B	C	D	E	F
=						
1	a	3				
2	b	2				
3	c	-3*π/2				
4	d	-2				

$y=3\sin(2x-\frac{3\cdot\pi}{2})-2$

$y=3\sin(2(x-\frac{3\cdot\pi}{4}))-2$

Period $[\frac{3\cdot\pi}{4},\frac{7\cdot\pi}{4})$ Range $[-5,1]$

Amplitude 3 Equation of Midline y =-2

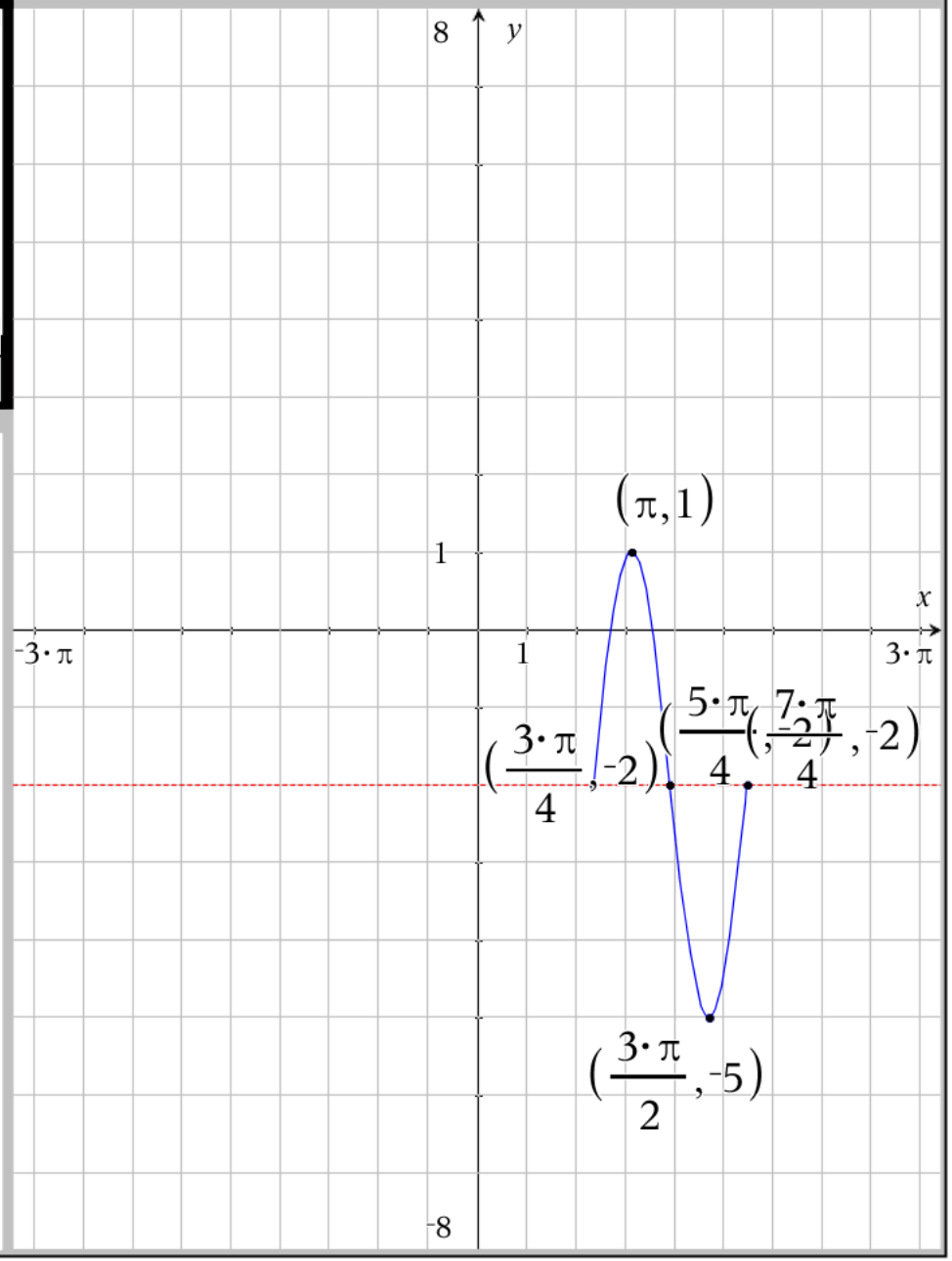
horizontal shift SHIFT RIGHT

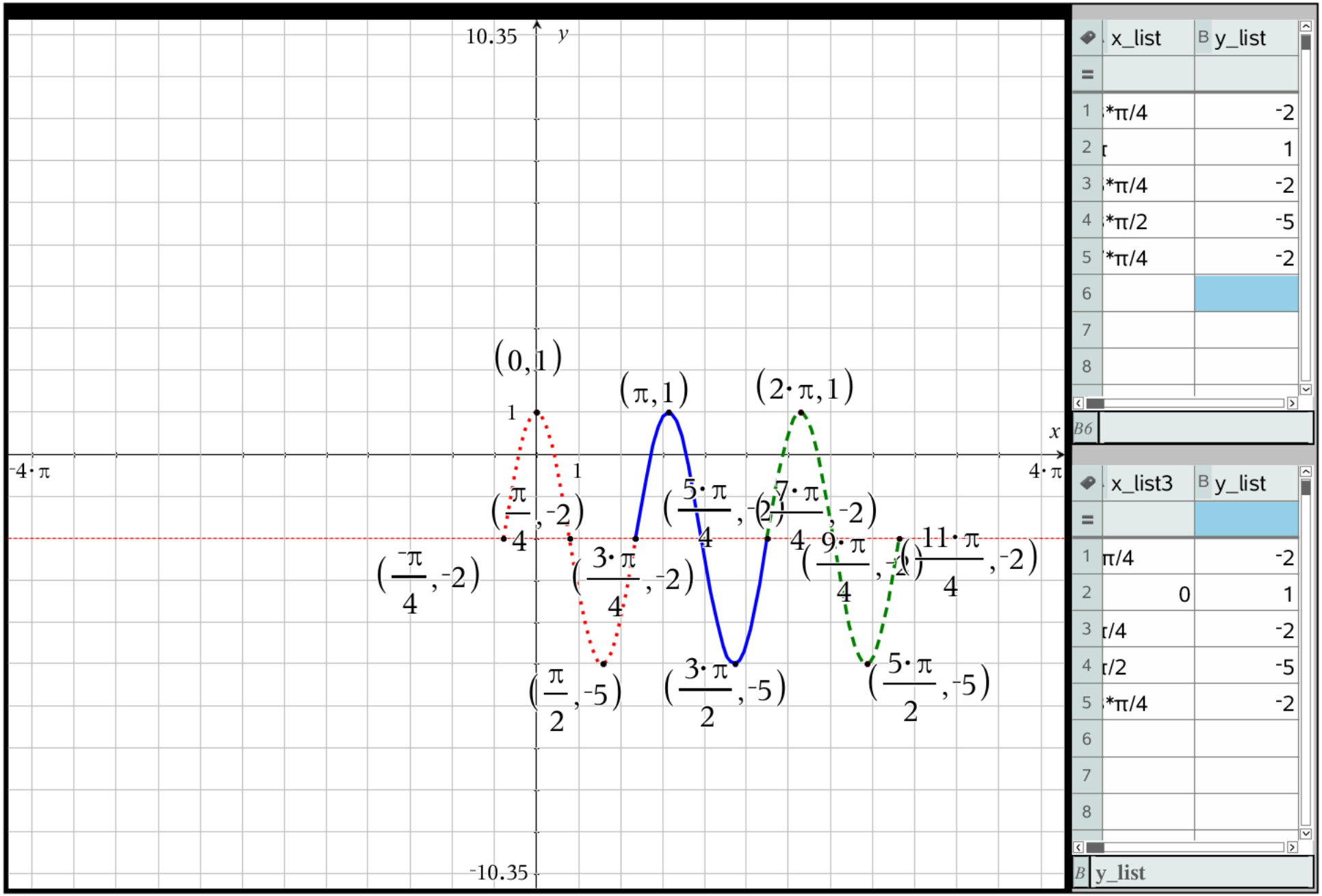
vertical shift SHIFT DOWN

compress horizontally

stretch vertically

Reflection? NONE




10.35
y
-10.35
x
-4·π
4·π
1
1
(0,1)
(π,1)
(2·π,1)
(π/4,-2)
(-π/4,-2)
(3·π/4,-2)
(5·π/4,-2)
(7·π/4,-2)
(9·π/4,-2)
(11·π/4,-2)
(π/2,-5)
(3·π/2,-5)
(5·π/2,-5)
x_list
y_list
1 *π/4 -2
2 1
3 *π/4 -2
4 *π/2 -5
5 *π/4 -2
6
7
8
B6
x_list3
y_list
1 π/4 -2
2 0 1
3 π/4 -2
4 π/2 -5
5 *π/4 -2
6
7
8
B y_list

	A	B	C	D	E	F
=						
2	b	π/2				
3	c	π				
4	d	1				
5						

B5

$y=2\sin\left(\frac{\pi}{2}x + \pi\right) + 1$

$y=2\sin\left(\frac{\pi}{2}(x + 2)\right) + 1$

Period [-2 ,2) Range [-1 , 3]

Amplitude 2 Equation of Midline y =1

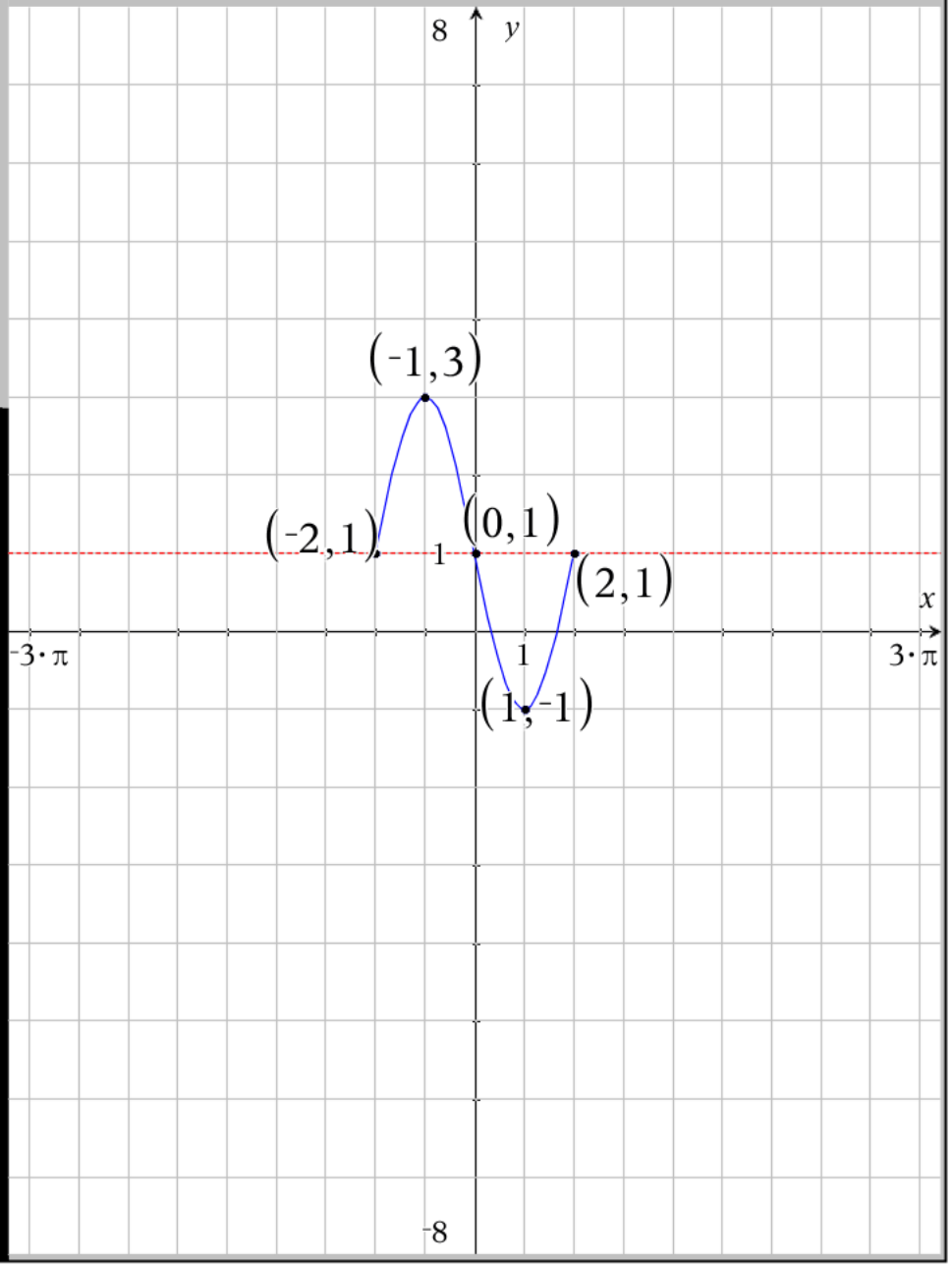
horizontal shift SHIFT LEFT

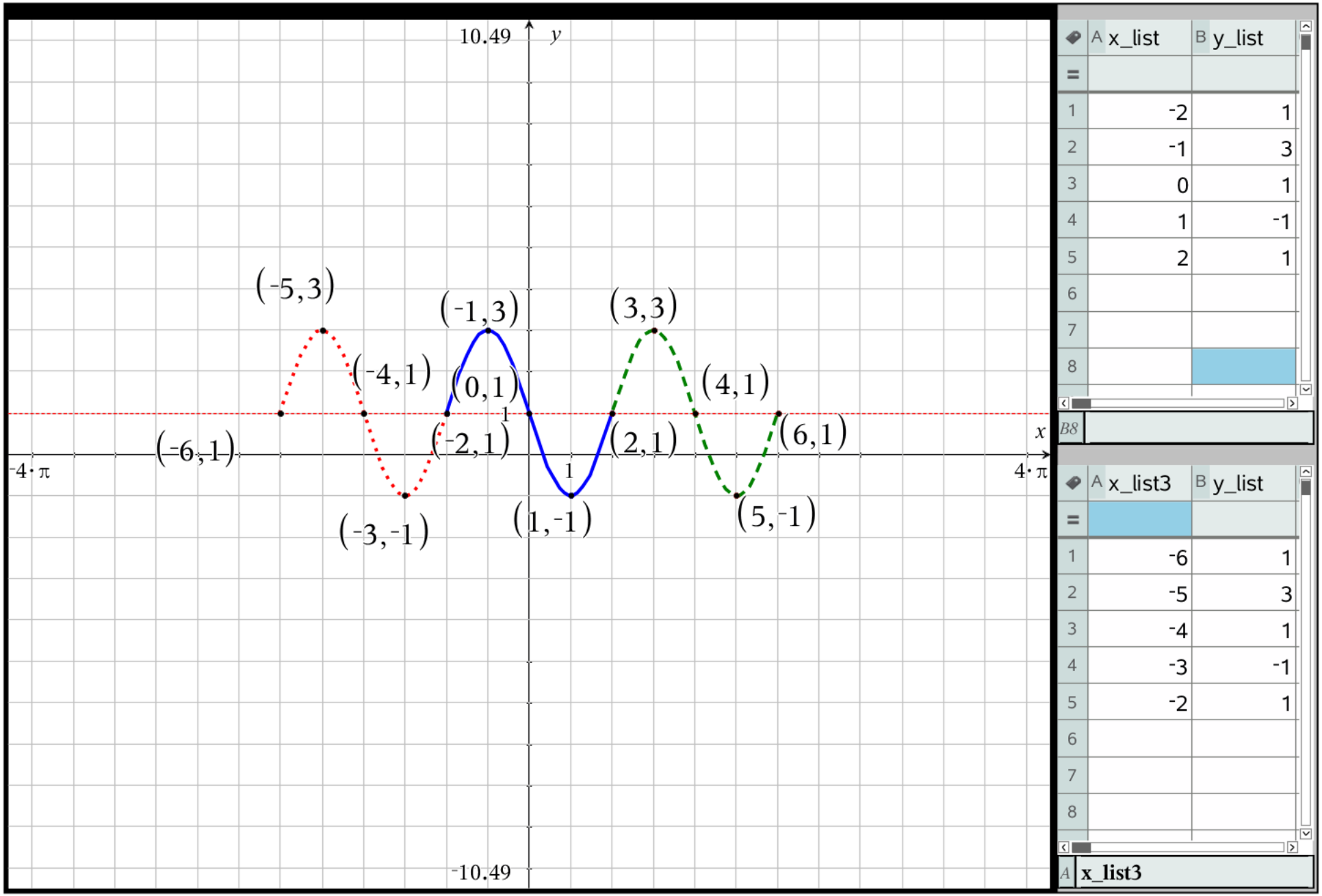
vertical shift SHIFT UP

compress horizontally

stretch vertically

Reflection? none





	A x_list	B y_list
=		
1	-2	1
2	-1	3
3	0	1
4	1	-1
5	2	1
6		
7		
8		

B8

	A x_list3	B y_list
=		
1	-6	1
2	-5	3
3	-4	1
4	-3	-1
5	-2	1
6		
7		
8		

A x_list3

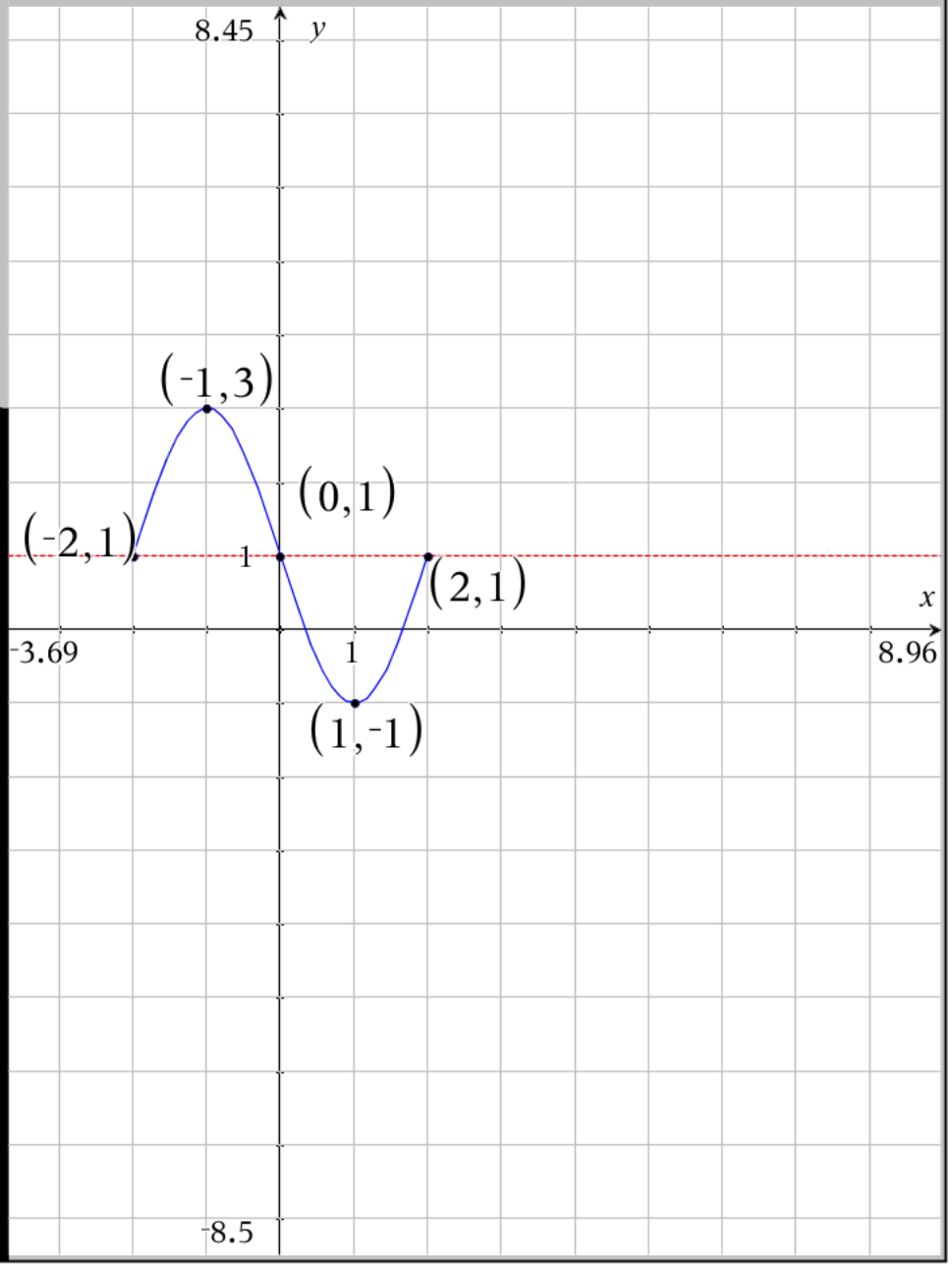
	A	B	C	D	E	F
=						
1	a	2				
2	b	π/2				
3	c	π				
4	d	1				

C1

$y=2\sin\left(\frac{\pi}{2}x + \pi\right) + 1$

this graph does NOT contain the same points as

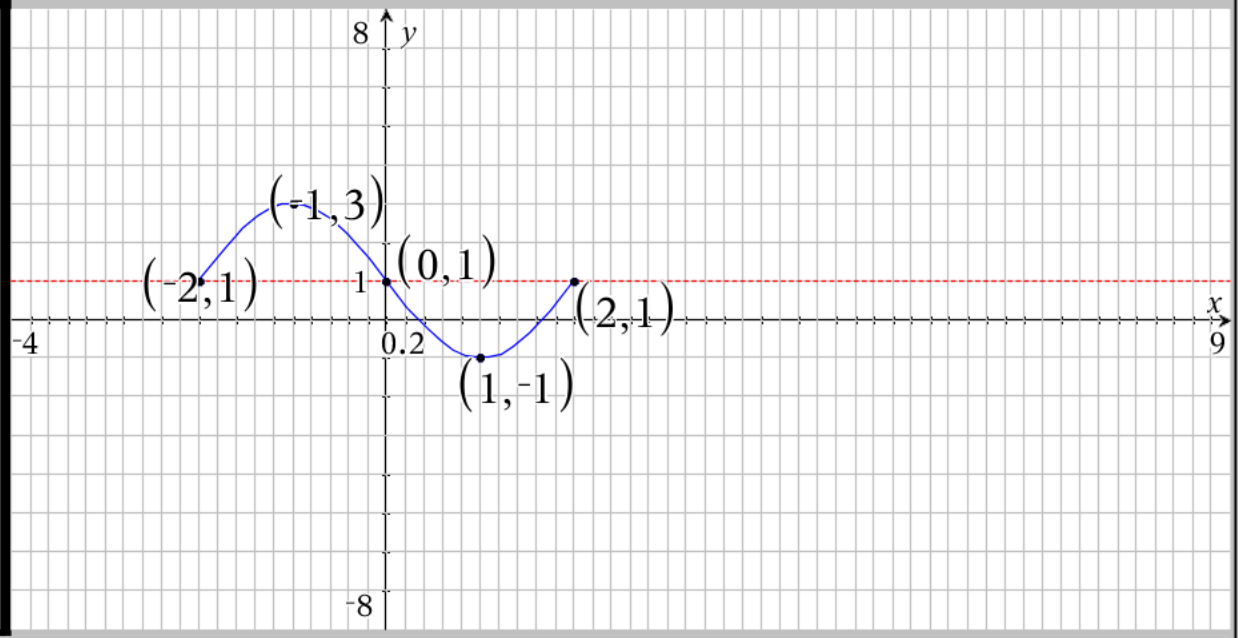
$y=2\cos\left(\frac{\pi}{2}x + \pi\right) + 1$



$y=2\sin\left(\frac{\pi}{2}x+\pi\right)+1$

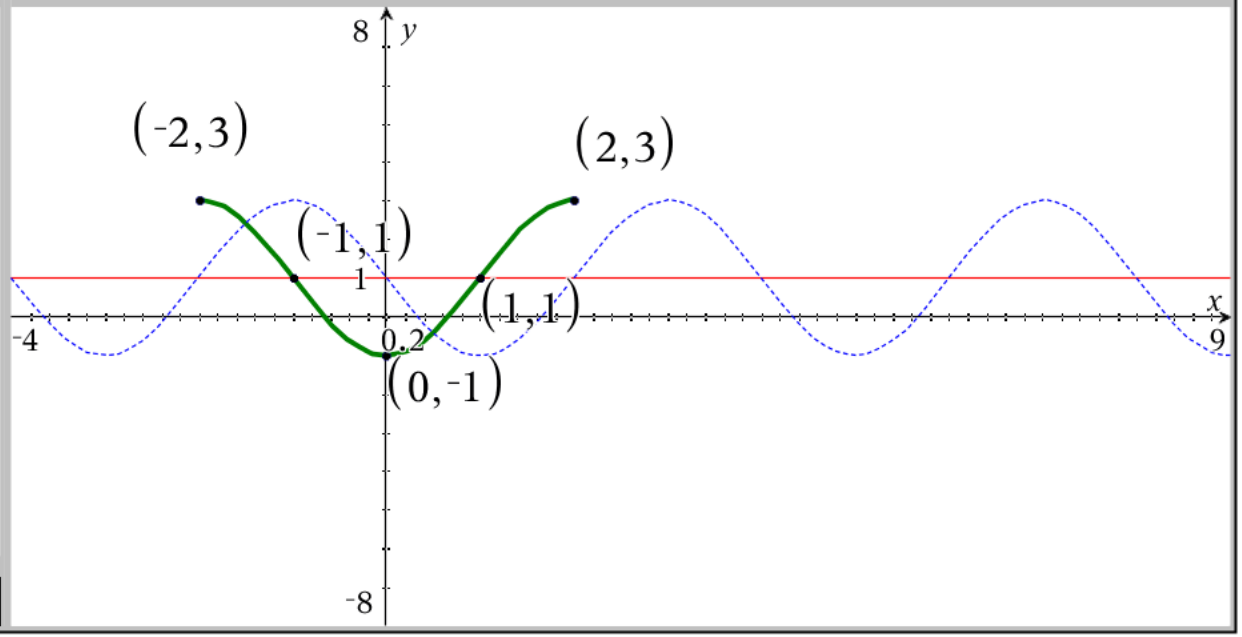
this graph does NOT contain the same points as

$y=2\cos\left(\frac{\pi}{2}x+\pi\right)+1$



	A	B	C	D
=				
1	a	2		
2	b	π/2		
3	c	π		
4	d	1		
5				
6				
7				
8				

B5



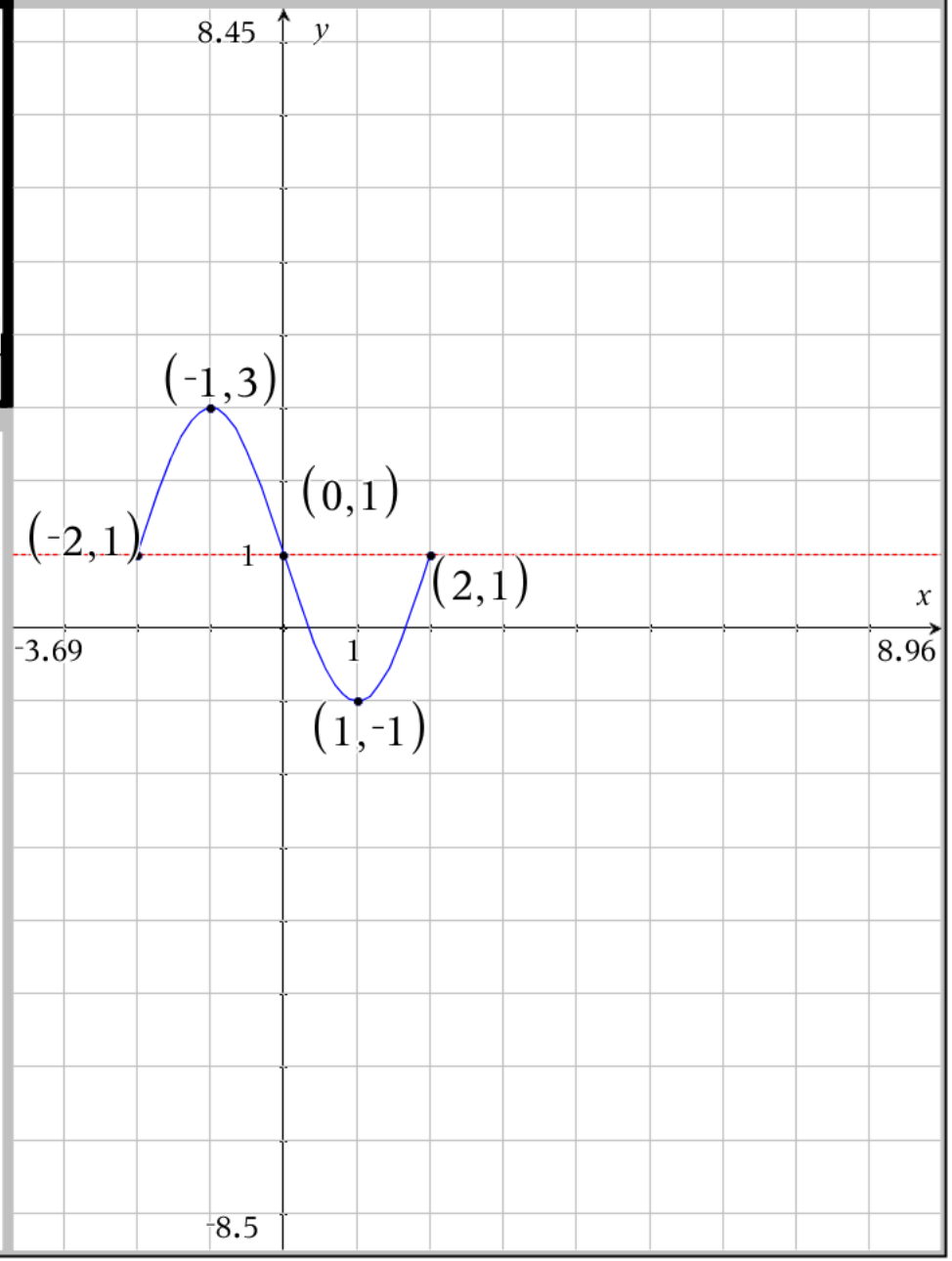
	A	B	C	D	E	F
=						
2	b	π/2				
3	c	π				
4	d	1				
5						

B5

$y=2\sin\left(\frac{\pi}{2}x+\pi\right)+1$

this graph contains the same points as

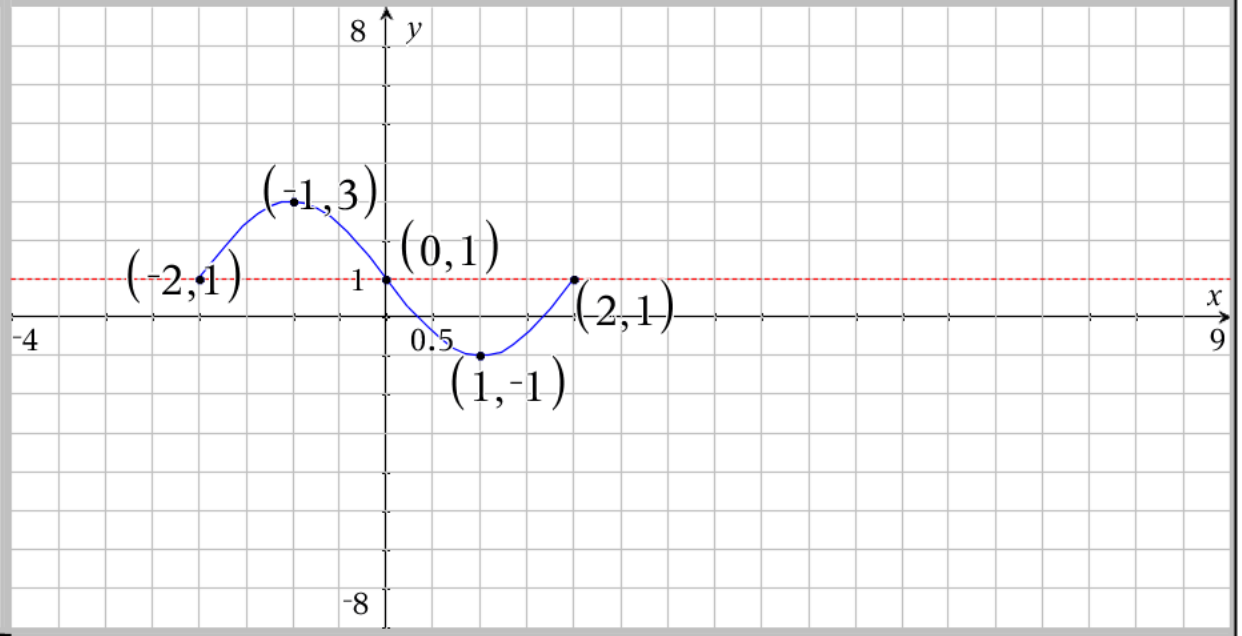
$y=2\cos\left(\frac{\pi}{2}x+\frac{\pi}{2}\right)+1$



$y=2\sin\left(\frac{\pi}{2}x+\pi\right)+1$

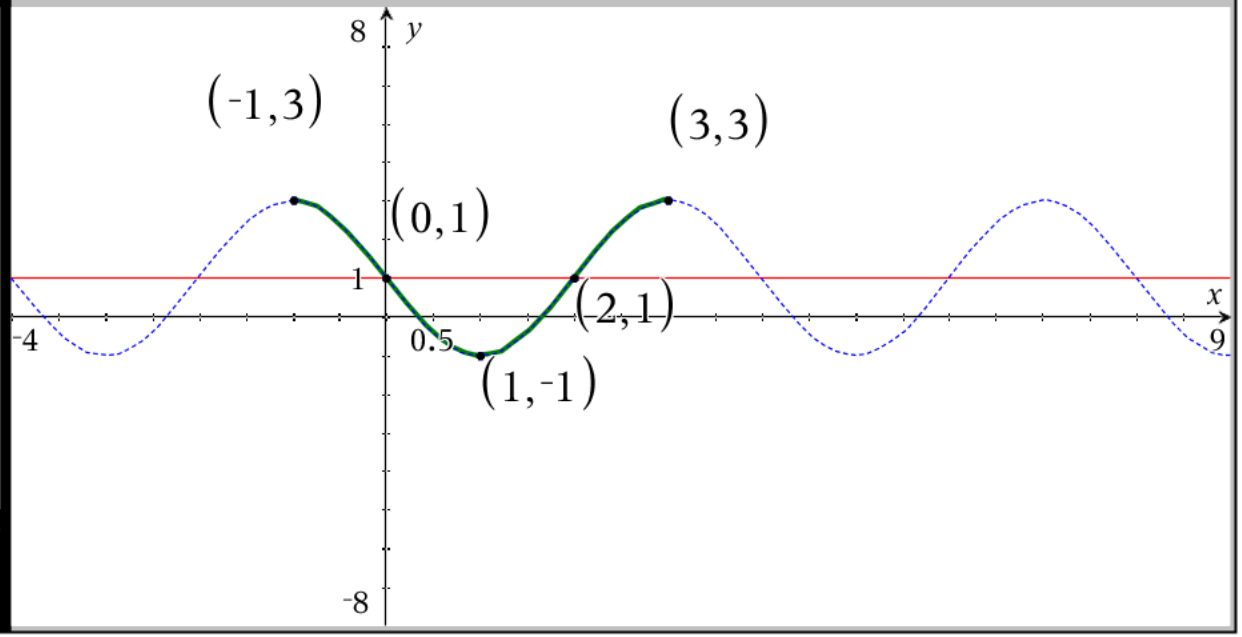
this graph contains the same points as

$y=2\cos\left(\frac{\pi}{2}x+\frac{\pi}{2}\right)+1$



	A	B	C	D
=				
1	a	2		
2	b	π/2		
3	c	π/2		
4	d	1		
5				
6				
7				

B3 $\frac{\pi}{2}$



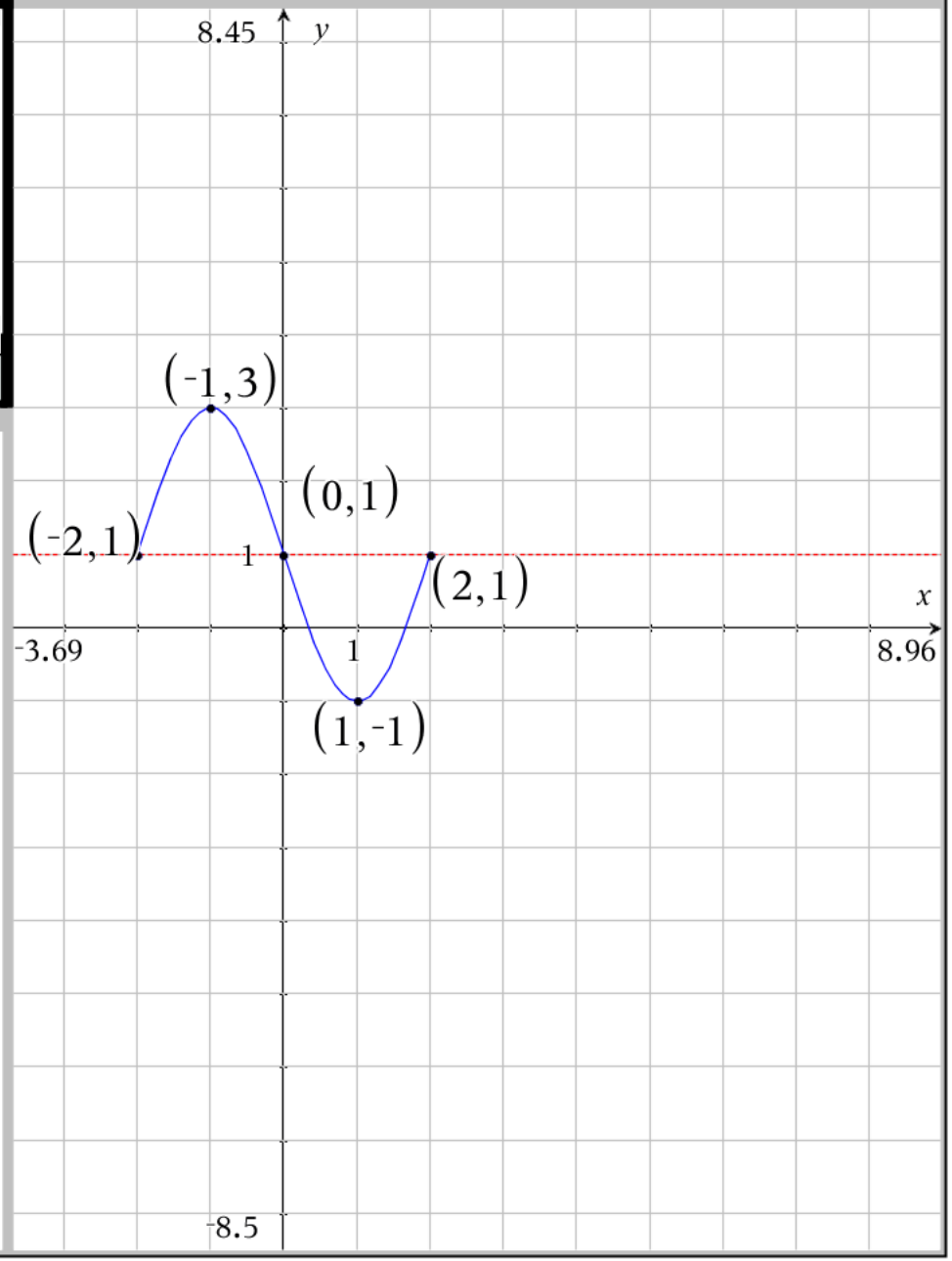
	A	B	C	D	E	F
=						
2	b	π/2				
3	c	π				
4	d	1				
5						

B5

$y=2\sin\left(\frac{\pi}{2}x+\pi\right)+1$

this graph DOES NOT contain the same points as

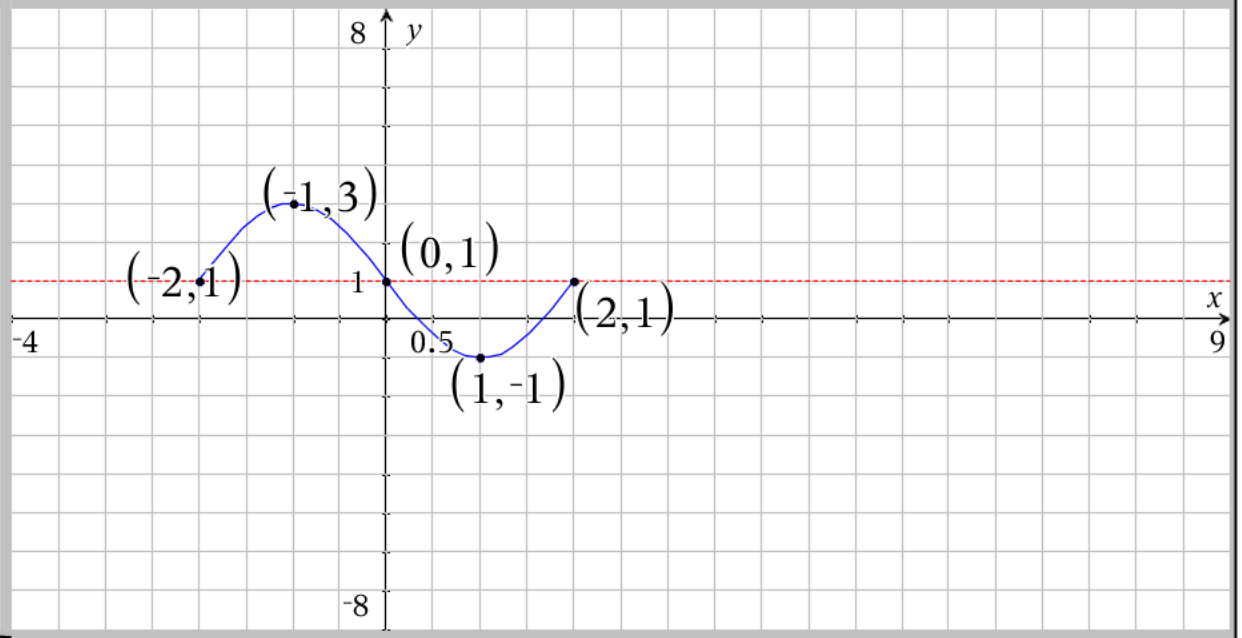
$y=2\cos\left(\frac{\pi}{2}x+\pi\right)-1$



$y=2\sin\left(\frac{\pi}{2}x+\pi\right)+1$

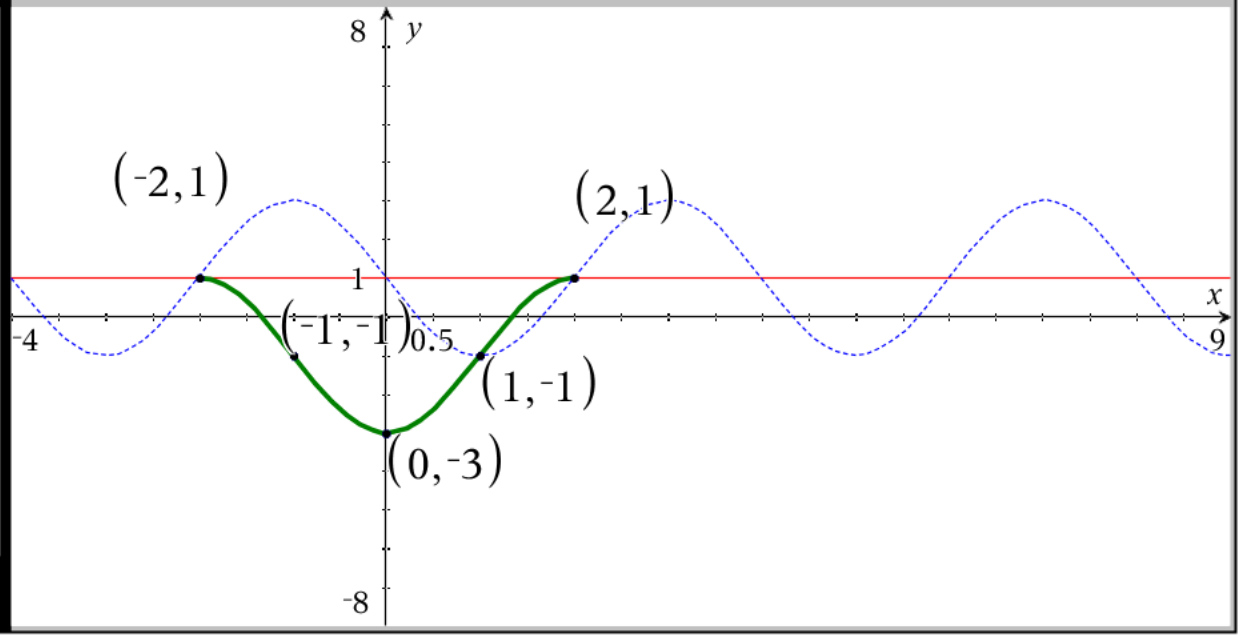
this graph DOES NOT contains the same points as

$y=2\cos\left(\frac{\pi}{2}x+\pi\right)-1$



	A	B	C	D
1	a	2		
2	b	π/2		
3	c	π		
4	d	-1		
5				
6				
7				
8				

B5



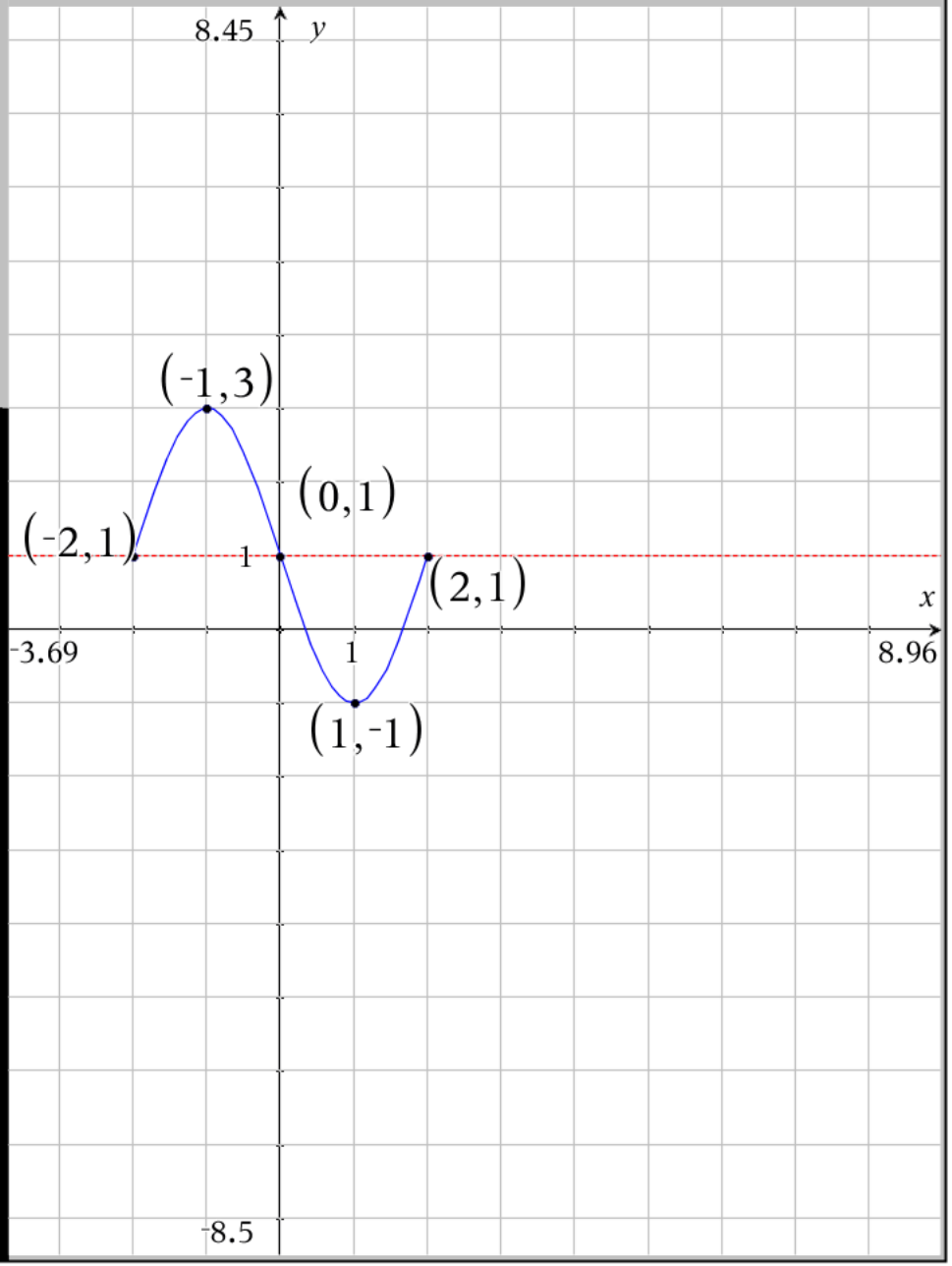
	A	B	C	D	E	F
=						
1	a	2				
2	b	π/2				
3	c	π				
4	d	1				

A1 a

$y=2\sin\left(\frac{\pi}{2}x+\pi\right)+$ d_given ▸ 1

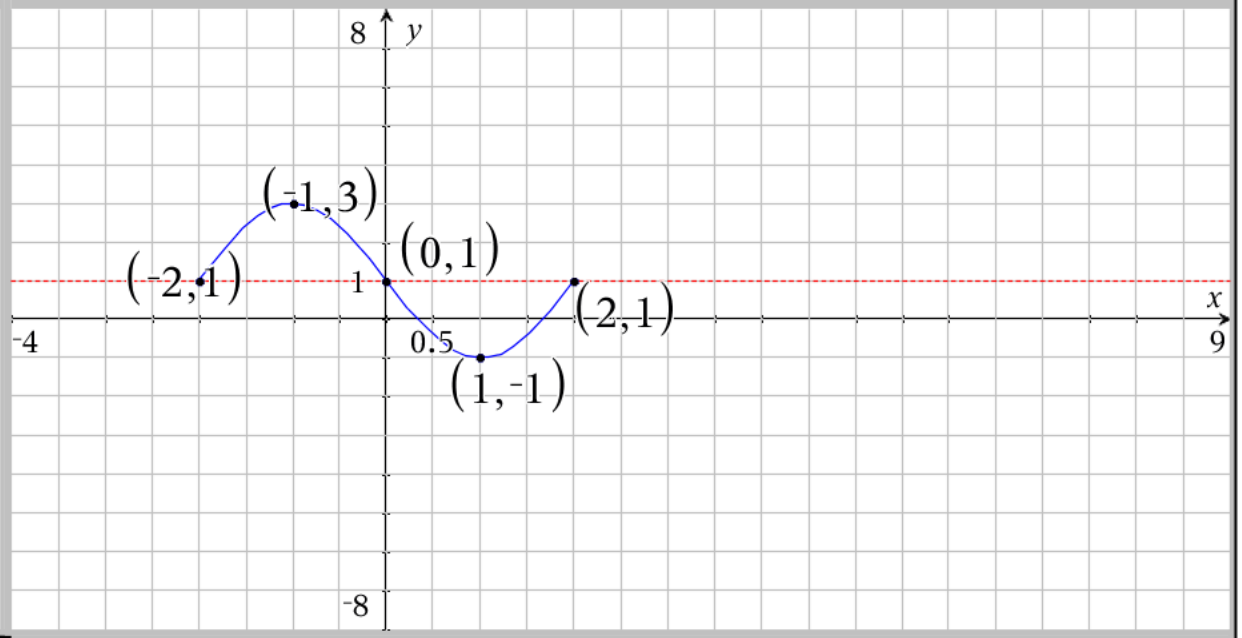
this graph contains the same points as

$y=2\cos\left(\frac{\pi}{2}x-\frac{\pi}{2}\right)+1$



y=a_given sin(b_given x
when(c_given<0,"−","+")|c_given|)
when(d_given<0,"−","+")|d_given|

this graph contains the same points as
y=a_1 cos(b_1 xwhen(c_1<0,"−","+")
|c_1|)when(d_1<0,"−","+")|d_1|



	A	B	C	D
=				
1	a	2		
2	b	-π/2		
3	c	-π/2		
4	d	1		
5				
6				
7				
8				

B4 1