

Graph each function

1. $f(x) = 3 \sec(2x - 45^\circ) - 2$
cos

Period: 180

Vertical Shift: -2

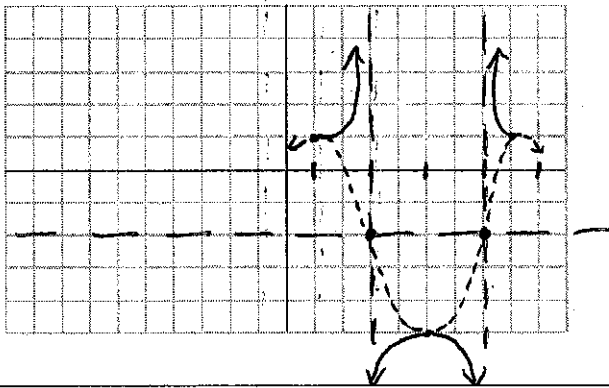
Horizontal Shift 22.5

Start: 22.5

End: 202.5

Increments: 95

x	f(x)
22.5	1
67.5	-2
112.5	-5
157.5	-2
202.5	1



2. $f(x) = -2 \csc(x - 45^\circ) + 2$
sin

Period: 360

Vertical Shift: 2

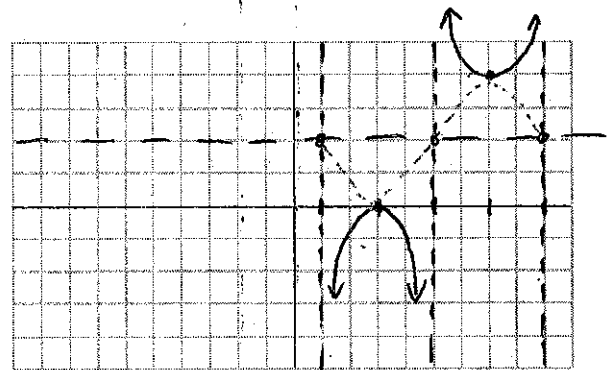
Horizontal Shift 45

Start: 45

End: 405

Increments: 90

x	f(x)
45	2
135	0
225	2
315	4
405	2



3. $f(x) = -2 \csc(x - \frac{\pi}{2}) + 1$
sin

Period: 2π

Vertical Shift: 1

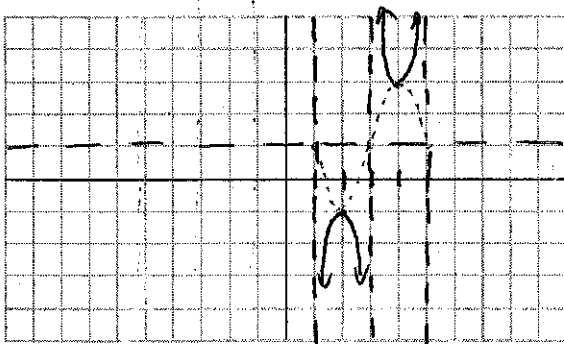
Horizontal Shift π/2

Start: π/2

End: 5π/2

Increments: π/2

x	f(x)
π/2	1
π	-1
3π/2	1
2π	3
5π/2	1



4. $f(x) = 3 \sec(x + \frac{5\pi}{4})$
cos

Period: 2π

Vertical Shift: 0

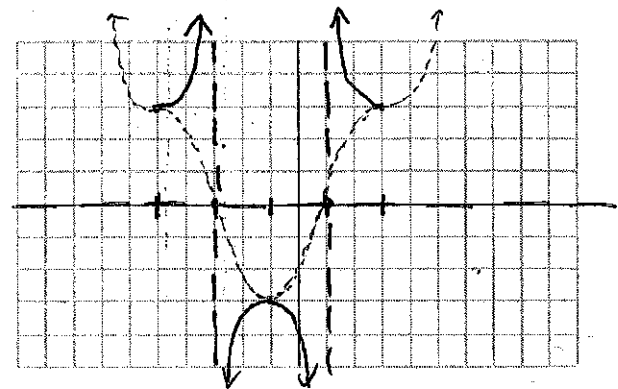
Horizontal Shift -5π/4

Start: -5π/4

End: 3π/4

Increments: π/2

x	f(x)
-5π/4	3
-3π/4	0
-π/4	-3
π/4	0
3π/4	3

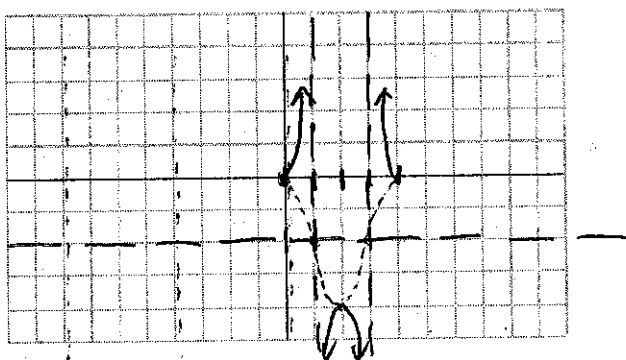


Graph each:

5. $f(x) = 2 \sec(2x) - 2$
cos

Period: 180
Vertical Shift: -2
Horizontal Shift: 0
Start: 0
End: 180
Increments: 45

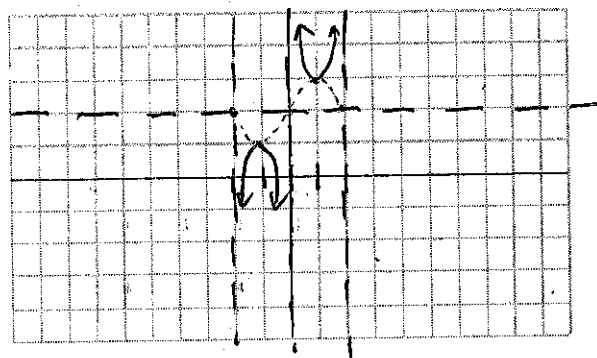
x	f(x)
0	0
45	-2
90	-4
135	-2
180	0



6. $f(x) = -\csc(x + 180^\circ) + 2$
sin

Period: 360
Vertical Shift: 2
Horizontal Shift: -180
Start: -180
End: 180
Increments: 90

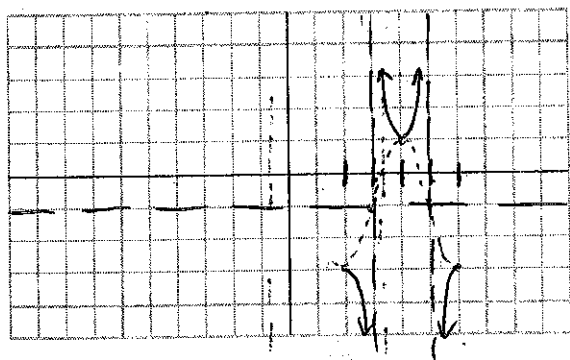
x	f(x)
-180	2
-90	1
0	2
90	3
180	2



7. $f(x) = -2 \sec(2x - \pi) - 1$
cos

Period: π
Vertical Shift: -1
Horizontal Shift: $\pi/2$
Start: $\pi/2$
End: $3\pi/2$
Increments: $\pi/4$

x	f(x)
$\pi/2$	-3
$3\pi/4$	-1
π	1
$5\pi/4$	-1
$3\pi/2$	-3



8. $f(x) = 3 \csc(x - \pi)$
sin

Period: 2π
Vertical Shift: 0
Horizontal Shift: π
Start: π
End: 3π
Increments: $\pi/2$

x	f(x)
π	0
$3\pi/2$	3
2π	0
$5\pi/2$	-3
3π	0

