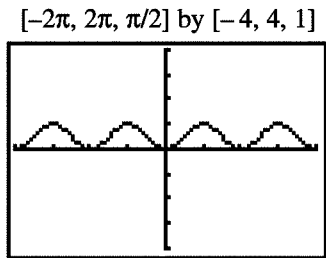


$$\boxed{23} \quad \frac{\sec^2 \theta - 1}{\sec^2 \theta} = \frac{\sec^2 \theta}{\sec^2 \theta} - \frac{1}{\sec^2 \theta} = 1 - \cos^2 \theta = \sin^2 \theta$$

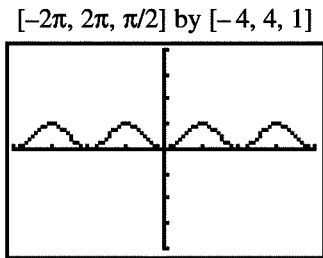
Graph  $Y_1 = ((1/\cos(X))^2 - 1)/(1/\cos(X))^2$  and  $Y_2 = (\sin(X))^2$  in  $[-2\pi, 2\pi, \pi/2]$  by  $[-4, 4, 1]$ .

Table  $Y_1$  and  $Y_2$  together in degree mode starting at  $x = 0$ , incrementing by 50.

Graph  $Y_1$  is shown in *Figure 23a*. Graph  $Y_2$  is shown in *Figure 23b*. The table is shown in *Figure 23c*.



*Figure 23a*



*Figure 23b*

X	Y1	Y2
0	0	0
50	.58682	.58682
100	.96985	.96985
150	.25	.25
200	.11698	.11698
250	.88302	.88302
300	.75	.75

$Y_1 = ((1/\cos(X))^2 - 1) / ((1/\cos(X))^2)$

*Figure 23c*