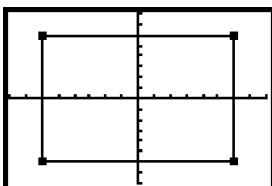


CHAPTER 11 Calculator Notes for the TI-73

Note 11A • Square Windows

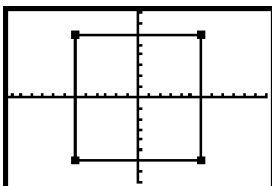
In a square window, the horizontal and vertical scales in the screen are equal in size. A square window is often preferred because it displays no visual distortion. (See **Note 7D** to learn about friendly square windows.) To create a window that is square, but not necessarily friendly, begin by entering a window range that shows what you want to see of the graph. Here the square with vertices $(-6, -6)$, $(6, -6)$, $(6, 6)$, and $(-6, 6)$ is shown. Notice that it does not look like a square—it is distorted. You can see that the scales on the horizontal and vertical axes are not the same size.

```
WINDOW
Xmin=-8
Xmax=8
eX=.1702127659...
Xscl=1
Ymin=-8
Ymax=8
Yscl=1
```



Now press **ZOOM** and select 5:ZSquare. The window is adjusted so that it is square. Notice that the square is no longer distorted.

```
ZOOM MEMORY
1:ZBox
2:Zoom In
3:Zoom Out
4:ZQuadrant1
5:ZSquare
6:ZStandard
7:ZoomStat
```



```
WINDOW
Xmin=-12.12903...
Xmax=12.129032...
eX=.2580645161...
Xscl=1
Ymin=-8
Ymax=8
Yscl=1
```

Note 11B • Trigonometric Functions

The trigonometric functions in this calculator work with angles that are measured either in degrees or in units called radians. In this course, all angles will be measured in degrees. Press **MODE** and check that your calculator is set to Degree mode.

The three trigonometric functions—sine, cosine, and tangent—are in the TRIG menu. Press **2nd** [TRIG] and select the trigonometric function you want: 1:sin(, 3:cos(, or 5:tan(. Enter the angle measure, close the parentheses, and press **ENTER**. The output is the trigonometric ratio expressed as a decimal number.

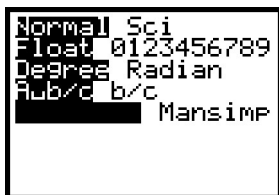
```
Normal Sci
Float 0123456789
Degree Radian
Ab/c b/c
Autosimp
```

```
TRIG ANGLE
1:sin(
2:sin⁻¹(
3:cos(
4:cos⁻¹(
5:tan(
6:tan⁻¹(
```

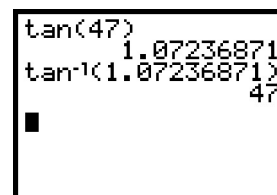
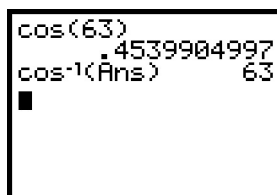
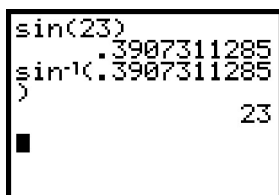
```
sin(23)
.3907311285
cos(63)
.4539904997
tan(47)
1.07236871
```

Note 11C • Inverse Trigonometric Functions

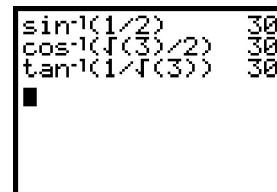
Press **MODE** and check that your calculator is set to Degree mode.



To convert a trigonometric ratio back to an angle measure, use an inverse trigonometric function. The inverse trigonometric functions are found in the TRIG menu. Press **2nd** [TRIG] and select the inverse function you want: 2: \sin^{-1} (, 4: \cos^{-1} (, or 6: \tan^{-1} (. Enter the ratio, close the parentheses, and press **ENTER**. The output is an angle measured in degrees.



When using an inverse trigonometric function, you can enter the ratio either as a decimal number or as a fraction.



Often, when you use an inverse trigonometric function, the degree measure of the output angle is not a whole number.

