

Chapter 14 / **Example 14**

Calculating with the inverse normal function

Given that $X \sim N(15, 3^2)$, find the value of x for which $P(X < x) = 0.75$.

Press **MENU** 2 **STAT** to display the List Editor screen.

Press **F5** DIST **F1** NORM **F3** InvN

Select Data **F2** Var and Select Tail **F1** LEFT

Enter the Area 0.877, 3 as the value of σ , 15 as the value of μ and leave the other variables unchanged.

Use **▼** to navigate down to Execute and press **EXE**.

```

Inverse Normal
Data :Variable
Tail :Left
Area :0.75
σ :3
μ :15
Save Res:None
List Var
  
```

Press **Í**.

$x = 17.0$

```

Inverse Normal
xInv=17.0234693
  
```