

Classpad Help Series sponsored by Casio Education Australia		www.casioed.net.au	
081	Inverse Normal Probability Calculations	Author	Charlie Watson
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We will calculate normal probabilities in the Main application.

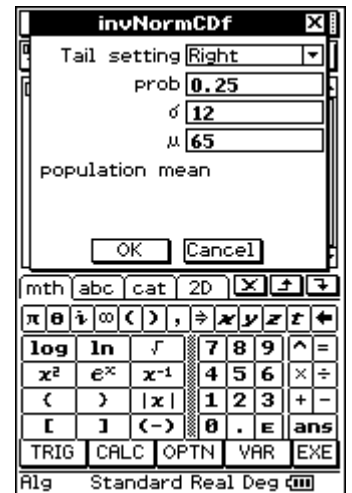
Assume we are working with a normal population of weights with mean 65kg and standard deviation of 12kg.

What is w so that $P(x \geq w) = 0.25$?

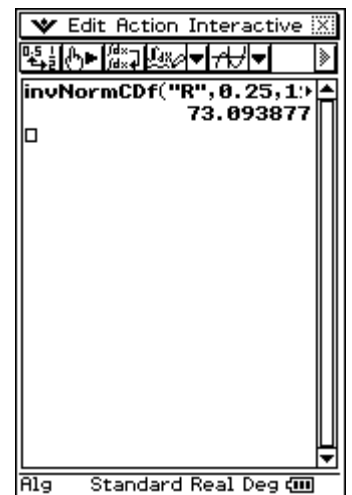
Tap **Interactive, Inv. Distribution, invNormCDF**.

Adjust the tail setting to **Right**.

Enter the three required values as shown and then **OK**.



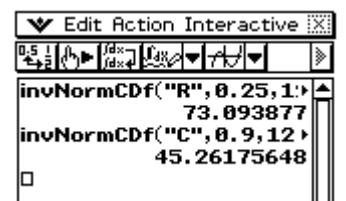
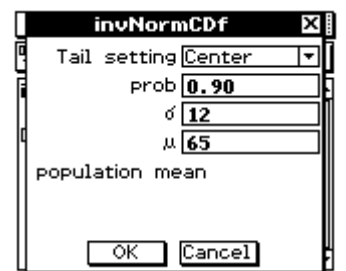
The required weight is close to 73.1kg.



What is w so that 90% of weights lie within w kg of the mean?

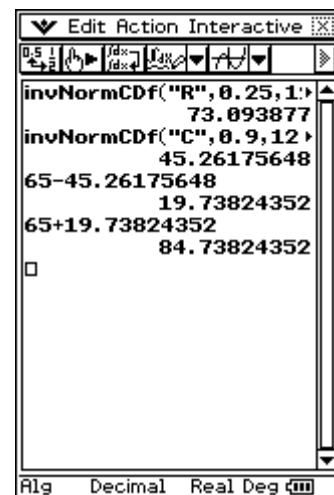
Repeat the previous steps, only this time the tail setting is **Center**.

The result of 45.26 is the lower weight.



Hence $w = 65 - 45.26 = 19.74$ kg.

The upper weight is $65 + 19.74 = 84.74$ kg.



Inverse normal probabilities can be calculated in the Stats application and also using the normCDF function in a solve strip within an eActivity.

These are explained in other help sheets. Please refer to the menu.