

Z-score notes

* used with a normal distribution, finds the percentage probabilities for numbers that are not exactly on the sigma lines

→ the larger the Z-score, the further the score is from the mean

- positive Z-score = greater than the mean
- negative Z-score = less than the mean

equation

$$Z = \frac{x - \mu}{\sigma}$$

Z → Z-score, μ → mean, x → actual value, σ → standard deviation

on the calculator (HW problems #6 on both pages)

TI 83/84

2nd → vars

#2 normalcdf (

normalcdf (lower #, upper #, μ , σ)

enter

* multiply by 100 to get the %.

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go into the sketch pad

menu → statistics → distributions → normalcdf

type in lower #, upper #, μ , σ

enter

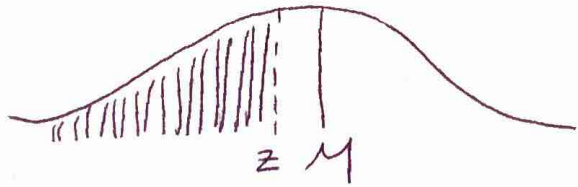
OR

stay on sketchpad type
" normcdf (low, upper, μ , σ)

ex #6 on page 649 of the HW should look like ...

normalcdf (45, 47, 47, 0.6) OR normcdf (45, 47, 47, 0.6)

given z-score, asked for %.



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menu

stats

dist.

normal cdf

LB: given in calculator ($-9 \cdot 10^{999}$)

UB: z-score

$\mu = 0$

$\sigma = 1$

*to find above, do
all these steps
then $100 - \%$
on the calculator.

given 2 z-scores, asked for %.

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menu

stats

dist.

normal cdf

LB: lower z-score

UB: higher z-score

$\mu = 0$

$\sigma = 1$