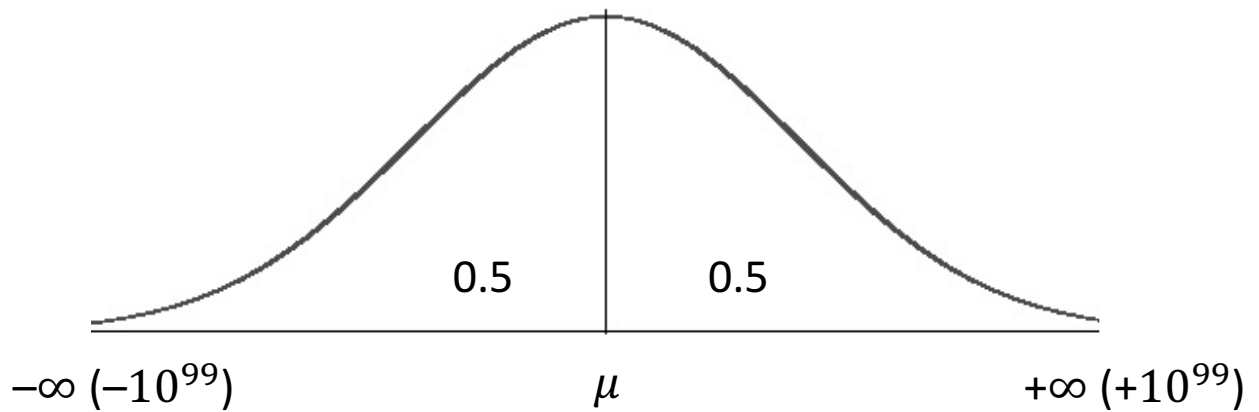


Normal distribution



Symmetric bell shape

Mean is in the middle

All x values are real numbers

From $-\infty$ to $+\infty$

Area below curve = Probability

Total probability = 1

Probability of each side = 0.5

GDC Skills

Casio

Find probability

MENU → STAT → F5 STAT → F3 DIST → F1 NORM → F2 Ncd

Find X or Z value

MENU → STAT → F5 STAT → F3 DIST → F1 NORM → F3 InvN

TI-84

Find probability

2nd → vars → 2: normalcdf(

Find X or Z value

2nd → vars → 3: invNorm

TI-nspire

Find probability

Menu → 5: Probability → 5: Distributions → 2: Normal Cdf →

Find X or Z value

Menu → 5: Probability → 5: Distributions → 3: Inverse Normal (The area is counted from the most left hand side to the x value.)

Find probability

1. The wrist measurements of 20 students are normally distributed with a mean of 12 cm and a standard deviation of 0.8 cm.

(a) Find the probability of students with wrist measurements smaller than 11 cm.

(b) Find the probability of students with wrist measurements greater than 13 cm.

(c) Find the probability of students with wrist measurements between 10.4 and 14.2 cm.
