

5.2 Three hundred women students have a mean height of 65.0 inches and a standard deviation of 2.0 inches. The 300 heights are normally distributed and are measured to the nearest inch.

- How many of them are 64 inches or less?
- Thirty percent of the students are below what height?

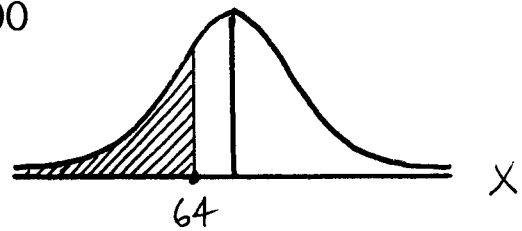
(a) We want to use a probability as a percentage

Number 64 inches or less

$$= \text{normalcdf}(-1E99, 64, 65, 2) * 300$$

$$\approx 92.56$$

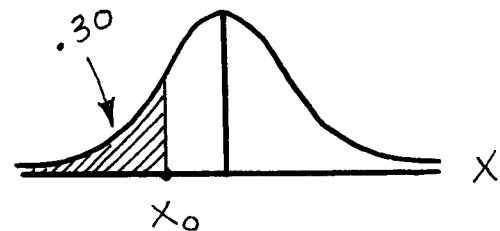
$$\approx \boxed{93 \text{ women}}$$



(b) We want to find a score for X given an area

$$x_0 = \text{invNorm}(.30, 65, 2)$$

$$\approx \boxed{63.96 \text{ inches}}$$



STUDY: Chapter 5: Section 5.3 & 5.4

- Discrete probability distributions