

TCHEBYSHEF'S RULE

Applies to any
distribution

Example

$$\mu = 40$$

$$\sigma = 5$$

a) what percent of the observations are between 30 and 50?

Solution

How many standard deviations is 50 away from μ ?

$$z = \frac{x - \mu}{\sigma} = \frac{50 - 40}{5} = 2 = k$$

$$\text{At least } 1 - \frac{1}{2^2} = 1 - \frac{1}{4} = \frac{3}{4} = .75 = 75\%$$

b) what percent of the observations are above 50?

