

## 2. Central Limit Theorem

1.  $E(\bar{x}) = 5.1, \sigma_{\bar{x}} = 0.4981$

3. 0.21

4. 0.41

5. First population

4. Confidence interval: birthweight  
[3.16, 3.47]

5. Confidence interval: birthweight  
smokers  
[2.90, 3.37]

## 3. Confidence interval: proportion of smokers

1. [0.187, 0.201]

2. 1502