Statistics of Exam

- \( n = 179 \)
- Mean = 67.89
- SD = 16.75
- Min = 17
- Q1 = 57
- Med = 69
- Q3 = 80
- Max = 98

Example

- Drivers in the Northeast and Mid-Atlantic states had the highest failure rate, 20%, on the GMAC Insurance National Driver’s Test. (They also were the drivers most likely to speed.) [Source: Insurance Journal, www.insurancejournal.com.]
- Describe the shape, center, and spread of the sampling distribution of the proportion of drivers who would fail the test in a random sample of 60 drivers from these states.
- What are the reasonably likely proportions of drivers who would fail the test?
More Examples

- Calculate $\sigma_p$ with $p = 0.8$ and $n = 10, 20, 40$.

- **Using the Properties to Find Probabilities**
  About 60% of Mississippians use seat belts. Suppose your class conducts a survey of 40 randomly selected Mississippians.
  - a. What is the chance that 75% or more of those selected wear seat belts?
  - b. Would it be quite unusual to find fewer than 25% of the Mississippians selected wear seat belts?