

1.5: Sampling Experiment (Worksheet)

Work in groups on these problems. You should try to answer the questions without referring to your textbook. If you get stuck, try asking another group for help.

Student Learning Outcomes

- The student will demonstrate the simple random, systematic, stratified, and cluster sampling techniques.
- The student will explain the details of each procedure used.

In this exercise, you will be asked to pick several random samples of companies from the list below. In each case, describe your procedure briefly, including how you might have used the [random number generator](#), and then list the companies in the sample you obtained.

The following table contains companies stratified by industry type into rows and grouped vertically by Stock Price at close on 20 September 2023 (clusters)

Companies Used in Sample				
Stock Price	Under \$50	\$50 to under \$100	\$100 to under \$200	Over \$200
apparel, fitness, footwear, retail	american eagle outfitters footlocker nordstrom	puma nike adidas crocs	target	the home depot costco
automotive, aviation, logistics, manufacturing	porsche honda southwest airlines delta airlines/td>	bmw group toyota		tesla fedex
consumer goods, food & beverage, food, healthcare	unilever	colgate palmolive the coca cola company starbucks	proctor & gamble johnson & johnson	"mcdonald's chipotle hershey company
cryptocurrency, e-commerce, financial services, finance	block	coinbase shopify	amazon jpmorgan chase & co american express	visa mastercard
entertainment, gaming, hospitality, luxury goods, music	ubisoft nintendo roblox	the walt disney company	airbnb hilton marriott lvmh spotify	netflix
social media, technology	pinterest zoominfo philips uber	cisco zoom video communications logitech	amd google apple	salesforce / slack microsoft nvidia adobe

A Simple Random Sample

Pick a **simple random sample** of 15 companies.

- Describe your procedure.
- Complete the table with your sample.

1. _____	6. _____	11. _____
2. _____	7. _____	12. _____

3. _____	8. _____	13. _____
4. _____	9. _____	14. _____
5. _____	10. _____	15. _____

A Systematic Sample

Pick a **systematic sample** of 15 companies.

1. Describe your procedure.
2. Complete the table with your sample.

1. _____	6. _____	11. _____
2. _____	7. _____	12. _____
3. _____	8. _____	13. _____
4. _____	9. _____	14. _____
5. _____	10. _____	15. _____

A Stratified Sample

Pick a **stratified sample**, by stock price, of 10 companies. Round any decimals to the nearest whole number.

1. Describe your procedure.
2. Complete the table with your sample.

1. _____	6. _____
2. _____	7. _____
3. _____	8. _____
4. _____	9. _____
5. _____	10. _____

A Stratified Sample

Pick a **stratified sample**, by industry grouping, of 20 companies. Round any decimals to the nearest whole number.

1. Describe your procedure.
2. Complete the table with your sample.

1. _____	6. _____	11. _____	16. _____
2. _____	7. _____	12. _____	17. _____
3. _____	8. _____	13. _____	18. _____
4. _____	9. _____	14. _____	19. _____
5. _____	10. _____	15. _____	20. _____

A Cluster Sample

Pick a **cluster sample** of companies from two industry groupings. The number of companies will vary.

1. Describe your procedure.
2. Complete the table with your sample.

1. _____	6. _____	11. _____	16. _____	21. _____
2. _____	7. _____	12. _____	17. _____	22. _____

3. _____	8. _____	13. _____	18. _____	23. _____
4. _____	9. _____	14. _____	19. _____	24. _____
5. _____	10. _____	15. _____	20. _____	25. _____

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