Statistics
Informed Decisions Using Data

FIFTH EDITION

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Pearson

Sullivan's Guide to Putting It Together

Putting It Together Sections	Objective		Page(s)
5.6 Putting It Together: Which Method Do I Use?	❶ Determine the appropriate probability rule to use		330–331
	❷ Determine the appropriate counting technique to use		331–333
9.5 Putting It Together: Which Method Do I Use?	❶ Determine the appropriate confidence interval to construct		483–484
10.6 Putting It Together: Which Method Do I Use?	❶ Determine the appropriate hypothesis test to perform (one sample)		538
11.5 Putting It Together: Which Method Do I Use?	❶ Determine the appropriate hypothesis test to perform (two samples)		595–596

Putting It Together Exercises	Skills Utilized	Section(s) Covered	Page(s)
1.2.24 Passive Smoke	Variables, observational studies, designed experiments	1.1, 1.2	49
1.4.37 Comparing Sampling Methods	Simple random sampling and other sampling techniques	1.3, 1.4	64
1.4.38 Thinking about Randomness	Random sampling	1.3, 1.4	64
2.1.29 Online Homework	Variables, designed experiments, bar graphs	1.1, 1.2, 1.6, 2.1	103
2.2.47 Time Viewing a Webpage	Graphing data	2.2	121
2.2.48 Which Graphical Summary?	Choosing the best graphical summary	2.1, 2.2	121
2.3.19 Rates of Return on Stocks	Relative frequency distributions, relative frequency histograms, relative frequency polygons, ogives	2.2, 2.3	128
2.3.20 Shark!	Graphing data	2.3	128
3.1.41 Shape, Mean, and Median	Discrete vs. continuous data, histograms, shape of a distribution, mean, median, mode, bias	1.1, 1.4, 2.2, 3.1	158
3.5.17 Earthquakes	Mean, median, range, standard deviation, relative frequency histogram, boxplots, outliers	2.2, 3.1, 3.2, 3.4, 3.5	199
3.5.18 Paternal Smoking	Observational studies, designed experiments, lurking variables, mean, median, standard deviation, quartiles, boxplots	1.2, 1.6, 3.1, 3.2, 3.4, 3.5	199–200
4.2.29 Housing Prices	Scatter diagrams, correlation, linear regression	4.1, 4.2	237
4.2.30 Smoking and Birth Weight	Observational study vs. designed experiment, prospective studies, scatter diagrams, linear regression, correlation vs. causation, lurking variables	1.2, 4.1, 4.2	237–238
4.3.31 A Tornado Model	Explanatory and response variables, scatter diagrams, correlation, least-square regression, interpret slope, coefficient of determination, residual plots, residual analysis	4.1, 4.2, 4.3	252
4.3.32 Exam Scores	Building a linear model	4.1, 4.2, 4.3	252
5.1.54 Drug Side Effects	Variables, graphical summaries of data, experiments, probability	1.1, 1.6, 2.1, 5.1	289
5.2.44 Speeding Tickets	Contingency tables, marginal distributions, empirical probabilities	4.4, 5.1	300
5.2.45 Red Light Cameras	Variables, relative frequency distributions, bar graphs, mean, standard deviation, probability, Simpson's Paradox	1.1, 2.1, 3.1, 3.2, 4.4, 5.1, 5.2	300–301
6.1.35 Sullivan Statistics Survey I	Mean, standard deviation, probability, probability distributions	3.1, 3.2, 5.1, 6.1	355
6.2.55 Beating the Stock Market	Expected value, binomial probabilities	6.1, 6.2	370
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7.3.13 Demon Roller Coaster	Histograms, distribution shape, normal probability plots	2.2, 7.3	410
8.1.33 Playing Roulette	Probability distributions, mean and standard deviation of a random variable, sampling distributions	6.1, 8.1	434–435
9.1.47 Hand Washing	Observational studies, bias, confidence intervals	1.2, 1.5, 9.1	462
9.2.49 Smoking Cessation Study	Experimental design, confidence intervals	1.6, 9.1, 9.2	476
10.2.38 Lupus	Observational studies, retrospective vs. prospective studies, bar graphs, confidence intervals, hypothesis testing	1.2, 2.1, 9.1, 10.2	521
10.2.39 Naughty or Nice?	Experimental design, determining null and alternative hypotheses, binomial probabilities, interpreting P-values	1.6, 6.2, 10.1, 10.2	521

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