

COLD RIVER TOY COMPANY *

2001/2002

Cold River Toy Company was founded in 1890 by the Mulford family to fill a demand for sleds in the burgeoning Rockies resort communities. The Original Rough Rider sleds were handcrafted by the Mulford brothers and sold in hardware stores in resort towns in Colorado.

In the 1920s sales of Rough Riders expanded throughout the Northwest as tourists spread their reputation for quality. Zelda and Scott Fitzgerald sledded on a Rough Rider in the French Alps, and the sled was instated as an adult toy.

The bottom dropped out in the Depression. Since purchases of toys and sports equipment are tied to disposable income, sales fell as the economy failed. Fortunately, Cold River was able to diversify into barrel staves from the seasoned oak that normally went into sleds and to integrate vertically with bootleg whiskey made of Rocky Mountain spring water. Not one employee was laid off, and Cold River prospered.

When prohibition was repealed, Cold River returned to sled production and increased distribution to the Midwest. Sales were beginning to climb when World War II began. The Milford's of Cold River reproduced their turn-on-a-dime strategy and shifted to gun-stock and packing-crate production for the duration of the war.

Sales had been steadily building through the 1960s and 1970s Rough Rider was rolled out to the East Coast. By 1985 Cold River had distributors and the main product line was a household word with phenomenal brand recognition.

The Milfords began to diversify in the 1950s into small wooden toys and several additional sled sizes to catch the baby-boom market. Distribution on the toy line was primarily limited to Colorado and volume frequently hovered at breakeven.

In 1984, Whizbang, Conglomerate purchased a controlling share from the Mulford Grandchildren and put Joe Walsh in power to clean up the operation, increase sales and diversify the product line. Whizbang felt the toy and leisure-time industry had good growth prospects over the next ten years. With Cold River's name and debt-free balance sheet and Whizbang's dollars and administrative expertise, they hoped to expand sales and net income at a rapid rate.

*Caso adaptado pelos Professores João Amaro de Matos e José A. F. Machado de "Statistics for Management" de Richard I. Levin, para a disciplina de Estatística do curso de MBA da Faculdade de Economia da Universidade Nova de Lisboa.

U.S. census projections were anticipating an upswing in the birth rate in the mid-1980s. Project births in 1986 were 4.4 million, up from a flat 3 million per year in the 1970s. Not only would more children be born but more first-borns were expected after the 1970s tendency toward putting off childbearing. More disposable income per child was hypothesized, since typically both parents were working and three adults (parents and a relative) were expected to be purchasing for each child. Appeals would be directed principally to those buying for preschoolers and to the good long-term possibilities of buyers for children under 15.

Despite the predicted growth in toy sales in the ensuing years, Whizbang knew the toy industry was a risky business. Two-thirds of all consumer purchases fell in the eight weeks before Christmas. Similarly, two thirds of all retail purchases from the manufacturer are made from August to October. Fifty per cent of all products every year are new products and 80 percent of those are unsuccessful. Most toy companies insulate profits against new product failure by relying on stable sellers to supply cash flow. Since most annual sales take place in such a short period, manufacturers don't have time to produce large quantities of hot selling items after they determine which products will move. Initial production quantities of a new, untried line pose a difficult decision for the marketing staff, and inventory write-downs are a common phenomenon in the industry.

I

Joe Walsh took over Cold River in the industry environment. He planned to use Rough Rider and its two line extensions to subsidize the new product entries for the coming years. Whizbang had given him a 5-year contract to increase sales 50 percent and diversify the product line. After two years, Joe had streamlined production, cut costs, and introduced a best-selling aluminum sled. He was ready to expand to a new Line of molded plastic toys when sales of Rough Riders began dropping. Joe is a competent administrator and a plodding thinker. He usually makes good decisions but likes convincing arguments from company personnel to sway his conservative bent. He had recently hired Laurel McRae and Frank Grove to fill a need at Cold River for data analysis and strategic planning. He felt a model toy company should rely on sophisticated marketing-analysis tools to keep on the edge of the industry, and Laurel and Frank had just graduated from a Midwestern School with reputable skills in these disciplines.

Their first day at Cold River, Frank and Laurel shook hands briskly as they were ushered to a joint office. They had met during the interviewing process and felt they could work together. Although Laurel had doubts about Frank's statistical ability he felt he would provide a valuable interface between marketing and statistical analysis. Frank thought Laurel a bit too brash and tactless, but he felt he could turn her computer background to a joint advantage.

Fred Walker, the VP of Sales, broke into their extended coffee break as they were wondering when they'd get an assignment. He was the acting marketing

chief at Cold River and had been with the Mulford family since he started selling sleds at age 18. He had sold in every Cold River territory and had been regional manager of the Northwest and the Northeast before becoming VP of Sales in 1974. Fred believed that experience was the best and that education was only icing - to obscure the flavor of the cake. He'd opposed the Whizbang acquisition avidly from its inception. When James Mulford finally acquiesced to the takeover, Fred forlornly agreed to continue to direct Cold River's marketing efforts.

Now, Fred greeted his new duo enthusiastically and introduced them around adjacent offices as the "marketeers". After telling them they had better "hang up those diplomas so folks would know they were out of diapers", he mentioned a ten o'clock appointment scheduled for them with Joe Walsh. As soon as Laurel and Frank sat down in the CEO's office, Joe began outlining the problems,

"This is an old company with old ideas. I've changed the way they think about production, but it's taken me two years to get a foothold with the old guard. Marketing was my next priority, but this sales decline has precipitated a crisis. I need you two to look at the distributor orders and find out what's happening there.

"Fred seems to feel a sales meeting is in order, to tap the pulse of our market. He says sales people know what's going on, and we don't need a computer to tell us."

"I know this is an abrupt introduction", Joe continued, "but can you look at these orders from the last three years and give me an opinion in a couple of days?"

With that, Joe left a sizable cardboard carton of orders across the table. Inside were hundred of order requisitions, rubber-banded together by year.

"Oh no", whispered Frank as they snaked back down the hall lugging their hefty project between them. I hope they have a keypunch operator."

"What's a keypunch?" asked Fred's secretary.

1. Using the data for the number of units sold per order in each of the years 1993, 1994 and 1995, construct a histogram to plot the frequency distribution for each year. Use interval widths of 100, and let the first interval run from 0 to 100.
2. Calculate the relative frequency distributions, using the histogram developed in question 1.
3. What changing pattern do you see in the data from year to year? What are some possible explanations?

*(Use data from Table 1: Units sold per order 1993-1995)*¹

¹O ficheiro ToyCompany.xls com informação para o caso, está acessível na web page da Faculdade (www.fe.unl.pt) em "Quem é Quem Corpo Docente José Ferreira Machado".

II

Faced with the fact of declining sales, Fred Walker compiled a comprehensive marketing strategy for wooden sleds after talking to his Sales force. His subordinate, Dan Riffen, was feeling the side effects of the new marketing competition at Cold River.

"Those young computer jocks think they can tell me how to run a sales force!" Fred yelled. "What do they know about hustling sleds? They probably can't even wax a ski, don't even know which end of a Rough Rider to point downhill!"

"Expand that section in the marketing plan on promotion for small toy stores. Put a free Cold River desk set in that complimentary retailer pack. We've got them now," he ranted.

Fred had designed a marketing strategy based on two assumptions:

- The backbone of Cold River sales is in the small store.
- The Sales force is the company's big asset.

He targeted his campaign to salespeople and to neighborhood stores, where sales were dropping. He laid out a two-pronged attack.

"First", he suggested, "we must motivate the sales force. We'll call them home for an overnight meeting at the opera house at Central City. We'll go heavy on the fancy food and have pretty girls demonstrating sleds. Then we'll sock it to them with our rabble-raising sales pitch, and they'll get out there and sell sleds."

"The next step", Fred expanded, "is to charm the small store owners. We'll start in heavy with a new Cold River winter sports calendar and a discount for orders over 30 units. If that doesn't pick up sales, maybe we'll advertise a weekend in Aspen for the store owner with the largest sales. "Those kids don't have a chance against my hard knocks experience. We'll have them out of here by Christmas."

4. Calculate the mean, median and mode for the annual order size data presented in section I.
5. Total sales have been falling during the past three years. What has been happening to the mean order size? Are these trends consistent with each other?
6. If small stores place small orders and large stores place large orders what is happening to the relative importance of the small stores? Is Fred correct in promoting sales to small stores exclusively?

III

Wednesday morning, after another late night session of punching cards. Frank and Laurel received a phone call from Joe.

"We've got a strategy meeting scheduled for 10 a.m. tomorrow to thrash out this sales decline. Fred will present his proposal, and I want a recommendation from you two. See what you can put together: if it's any good. We'll flesh in details later".

"Oh No," said Frank as they hung up, "we still don't have a clear picture, and this may be our only opportunity to get a foot hold in the Rockies.

"Calm down," answered Laurel, "We've got the data punched: let's start testing the variability."

7. What are the variance and standard deviation for each year? (use the raw data.) Using the grouped data from the histogram you developed in section 1, compute the variance and standard deviation for 1995.
8. Use Chebyshev's theorem to calculate the range in order size that will include at least 89 percent of all orders.
9. Examine the histogram plotted for section I and compare them to the Chebyshev ranges calculated above. How precise is Chebyshev's theorem in establishing the range in each case?
10. In which year is an individual order size most likely to be 700 or greater?
11. How would you present your analysis to Fred? Is Fred correct in promoting sales to small stores exclusively? How do you reconcile the fact that sales are falling with your position?
12. Cold River has been staging equivalent promotion efforts at both small and large stores. Suppose, at the strategy meeting, it is decided that Fred's strategy ought to be followed. What patterns will the data for 1996 show? And how will it be different from the present pattern? Will the data support Fred's strategy? How will the 1996 data differ from the previous years' in accurately reflecting the market environment?

IV

During 1995, Cold River launched a new Rider toy, Polaris. Joe Walsh hopped the toy, named after a popular science fiction movie, would capture market share in the sunbelt, an area impervious to the charms of the Rough Rider because of climate. Polaris is manufactured of a fiber-reinforced, brightly colored plastic, designed for children aged 6 to 12. The toy was an immediate success in the 1995 Christmas retail market.

Polaris is propelled by pedaling, but unlike other pedal toys it has a main-spring, and a flywheel. The toy can be wound up by foot power or as it moves downhill. The toy is self-propelled and emits a whirring noise like a jet turbine as it travels along its range of 100 yards.

Now, in preparing for the 1996 season, Cold River encountered a production problem. The flywheel was mounted on a shaft that turned inside a sleeve. If the space between the shaft and the sleeve were too tight—say less than 0.003"—it

would be hard to pedal the toy. However, if the space were larger than 0.006" the toy would wear out quickly. Another factor influencing the durability of the toy was the average weight of the child riding it.

Although the toy was selling well, Fred had started receiving complaints about it from his Sales force. "Aha," he thought, "here's something to keep the dynamic duo off my back for a while."

"Hey you," he yelled as he noticed Laurel casually ransacking his order file. "I've got an important job for you. Straighten out Nick Pappas in Production on this. Find out why Polaris is breaking, or we'll have to close out the line."

Laurel groaned as she recalled her three painful hours of college credit in production and went to track down Nick Pappas for data.

13. Using market survey data for a sample of 500 toys find the relative frequency of each clearance. (Use classes of less than 0.003 inches, between 0.003 and 0.006 inches, and more than 0.006 inches). Assuming that the sample relative frequencies are the same as the population frequencies, what is the probability that a toy leaving the factory will be easy to pedal?
14. What is the probability that a toy with clearance greater than 0.006" will be used by a 140-lb. child? (Assume clearance and user weight are independent.)

(Use data from Table 2: Market survey data on "bearing clearance" and "user weight")

15. An estimated 0.6 percent of all toys sold broke within 2 years of the warranty period. The following data apply to broken toys that were returned. What is the relative frequency of a clearance greater than .0.006" given a broken toy?
16. If we have a broken toy, what was its relative frequency of use by a 140-lb. or heavier child?
17. What is the probability that a pedal toy will be given to a 140-lb. child and will break during the warranty period?
18. What is the probability that a pedal toy will break before the end of the warranty period if it is given to a 140-lb. child?
19. What is the probability that a toy will break before the end of the warranty if the clearance is more than 0.006"?

(Use data from Table 3: "Bearing clearance" and "user weight" for toys that broke during warranty)

Since its founding in 1890, Cold River had always built its Rough Rider Sleds the same time-proven way. Each of the fifteen craftsman would build a complete sled by hand. First he would cut, weld, grind and paint the channel iron to make sled runners. After shaping the wooden frame pieces, he would assemble them together with the runners and the steering mechanism. Once he was through, he added the final touch by stenciling a stallion and the Name, Rough Rider, on the steering bar.

Joe periodically assessed the feasibility of installing an assemble line for Rough Rider, similar to production of his other lines. He thought the old way of building sleds was less efficient than a production line. Industrial engineering consultants had estimated that a production line could reduce the number of craftsmen to twelve and maintain the same output.

Nick Pappas, the production manager, approached Joe one day with a request. "Those kids did such a good job on the Polaris problem, how about if we turn them loose on our annual efficiency study and see if they can settle the argument. I'd love to see a good assembly line in here for next year's Rough Riders.-

"Great idea Nick," Joe agreed, "I had that scheduled to worry about next week, and they been looking a little bored recently".

Frank and Laurel began gathering information that afternoon. The comptroller estimated that the firm's cost of capital required that an investment in a new production line achieve at least an 18 percent reduction in per-unit labor costs after downtime was taken into account in order to break even.

A discussion with Nick gave them several additional insights. He told them that under the present system, if a craftsman were absent, production would continue. With a production line, if two or more workers were absent from the production stations, it would stop the whole line for the whole day. The workers reporting to work would have to be paid, but no sleds would be built. Although the line would be equally productive every day it operated, regardless of how many workers were present, it could not be understaffed permanently with only eleven workers.

Personnel gave Laurel and Frank the file on worker absenteeism (Table 4) and said the data were stable and representative, and would not change if the production line were installed.

20. What is the probability that a given worker will be absent on any given day?
21. With 250 work days per year and 12 employees on the line, how many days per year will there be exactly 1 worker absent? And, 2, 3, 4, 5 workers absent?
22. If employees are paid in full for the days when they are not absent, but the production line has stopped, how much will Cold River spend in non-productive wages? How much will the company save with a production line (amount and percentage)? (Assume a \$50 per diem wage rate.)

The head of personnel, Irene Macdonald (who double as office manager and purchaser for raw materials), thought that if people came to work and had nothing to do, serious problems would result. "Idle hands are the devil's workshop" was a favorite saying of hers. She insisted that the production line could not be down more than twice per year on the average.

Nick Pappas argued with her for a while and then conceded that this could be done with overstaffing, and still the production line would be cheaper.

23. How many extra production workers are needed to overstaff the production line so that downtime will not be greater than twice per year on the average?
24. How much more will be produced with overstaffing? What will be the change in per-unit labor costs? Should the line be installed?

(Use data from Table 4: Absent Workers)

VI

The controller, Eric Thomasson, was so pleased with the thorough job Frank and Laurel had done with the production problem that he asked them to help him out with a minor cash flow problem.

"When Joe and I joined Cold River, we noticed dollar sales were dropping drastically whenever we instituted a promotion to our distributors. Retail sales were constant but we lost money. To overcome this, we initiated a policy of continuous promotion. Each Rough Rider came with a refund coupon that entitled the purchaser to a \$10 rebate. After the purchaser sent us his coupon, we'd mail him a check the following Monday."

"Sounds great," said Frank, "What's the problem?"

"We're running tight here at Cold River. With the expected product line expansions, we are holding on to every penny we can and reinvesting it till we need it. Except for receivables and inventories, all our current assets are in cash deposits and marketable securities, and we keep the cash as low as possible. We need 3 weeks lead time to convert securities into cash, and I'd like a good idea of how much I'll need every Monday in cash to pay the rebates."

"That's a hard one to get with any accuracy. If we could get a figure for the average number off coupon redemptions per week, we could use the Poisson distribution to get a handle on the figure: but the only way to be 100 percent sure that the Monday balance is high enough to have a very large balance equal to all the outstanding coupons, responded Laurel.

Eric felt that this amount defeated the purpose of cash management, and besides, that level of certainty was not necessary, since they could delay mailing the checks for a week if the balance was too low. Only a minor disruption would result.

25. If a delay in mailing the checks once every 5 weeks were acceptable, how large should the balance for coupons be?

26. How much should the balance be, to cut the number of delays to once every 10 weeks?
27. How much larger should the balance be to cut the average number of delays to once every 20 years?

Number of coupons each week
(Data are to be read row by row)

173 182 182 168 172 163 144 143 135 143 124 104 93 80 85 75 56 57 50 23 28 15
24 16 19 15 10 9 14 16 35 41 40 52 49 71 89 83 90 102 118 132 150 140 147 176
163 170 185 184 179 187

VII

The day after the cash flow study was completed, Frank and Laurel were packing their knapsacks for an afternoon of cross-country skiing when Joe caught them in the employee's lounge.

"If you folks have a second, I have a minor project for you. We're considering launching a new line of wooden toys and want to know who buys the old line. Here are the warranty cards for the last couple years. See what you can find out, then take the afternoon off."

The two market statisticians exchanged woebegone glances and headed back to the office.

The preschool line of wooden puzzle toys on wheels was sold in 20 stores in Denver and in 20 more resort towns like Aspen and Telluride.

"A consumer's profile won't be difficult to capture," said Frank. "Wonder what questions are on the warranty cards?"

"Let's start with income bracket for the last year. You enter this stack," said Laurel.

Four hours later they had finished coding in the income bracket and were ready to run the data and look at the distribution.

"I'm sure glad this toy isn't more widely distributed," said Laurel.

"We'd have been here for days".

28. What distribution appears to describe the purchasers' incomes?
29. What are the mean, median, and standard deviation

"There's something else on my mind," said Joe. "It's crucial that we establish income group proportions accurately if we are going to use our budget efficiently. I want to be sure we are advertising to the right income brackets.

30. Suppose that purchasers' incomes are normally distributed with the mean and the variance calculated in 10. What proportion of the toy purchasers would you expect to earn more than \$20,000 per year? And less than \$15,000? What proportions actually do fall in these ranges?

(Use data from Table 5: Purchaser's income)

VIII

Fred notified Laurel and Frank of a strategy meeting to discuss the new wooden toy product line hot off the drawing board of Dunlap Sandell.

Dunlap had spent most of his career drawing for a West Coast animation studio and was personally responsible for several nationally famous hamsters. At age 45, he got tired of the excitement and pressure of LA, and with his wife and three children, he abandoned his backward swimming pool to get closer to nature in Colorado. He often said he adored Cold River because he could do his job with a blindfold and mittens on. Dunlap had created the Polaris Rider two years before, and Joe Walsh had recently directed his efforts toward the preschool market because of predicted growth potential. Today, Dunlap is surrounded by a gaggle of wooden animals.

Joe opened the meeting with some ideas about the new line. He felt the toy industry had increasing sales possibilities in sturdy natural toys of good quality. The new toys would be a spin-off of the current preschool products sold only in Colorado. The present distribution system might be used to introduce the experimental animals in Colorado for a test market before Cold River began national distribution. The menagerie of new animals received applause from the corporate staff as Dunlap held them high for introduction. Made like the old line, each animal was a chunky wooden puzzle toy on wheels, so a child could pull it behind him or reassemble the pieces. Dunlap had added a new twist: The five pieces of each animal fit with the five pieces of every other animal, so a child could create a penguin with an anteater snout or a cow with a lion's head. He felt the diversity would lead the purchaser to add to the child's zoo and bankroll Dunlap for years.

A month later, Laurel and Frank were tabulating daily sales made in the four stores chosen for the test market of the Menagerie. Laurel wanted to use these data for estimating, the first season's sales of the new toy. Nick told her that Cold River needed to sell at least 100,000 of the Menagerie toys to break even.

For questions 31 through 34, assume daily sales are independent from store to store and from day to day.

31. Estimate the population mean and standard deviation of daily sales.
32. Estimate the standard error of the mean for this sample.
33. Construct a 95 percent confidence interval for the mean daily sales of the new toy in a single store.
34. Should Cold River produce the toy if it wants to be 99 percent certain first-car sales will be above 100,000 units? Toys will be sold in 100 stores with 60 shopping days anticipated.

(Use data from Table 6: Sales by store)

The numbers in Table 7 (Number of repeated purchasers) express the purchaser's desire to buy another animal. With these data

35. Estimate the proportion and the standard error of the proportion for repeat purchasers.
36. Construct a 80 percent confidence interval for the proportion of repeat purchasers among the Menagerie buyers.

IX

Since the test market of the Menagerie toys was going so well, Fred suggested to Laurel and Frank that they might want to proceed with some production calculations before distribution expanded and things got hot.

"For example," he said, "we've already had a few complaints about some of the toys sticking; and if 3-year-olds can't pull a puzzle toy apart, nobody can."

"I suppose we'd better check with Nick about the gap size between pieces and see what other problems he anticipates with production while we're at it," answered Frank. "We've got a potential star toy on our hands, and we'd better check out the difficulties now."

Laurel and Frank wandered off to corner Nick. "This is so exciting," bubbled Laurel, "I've never been in on a new product before, and I feel like I'm helping with the discovery of the hula hoop."

"Nick, we've been looking for you to chat about the Managerie," continued Laurel, as they enter the Rough Rider factory and spotted their prey.

"We need to know the planned average gap size and the standard deviation on the puzzle pieces. Fred's been getting some complaints on the tightness, so we'd like to see if samples from production are significantly different from what they are supposed to be," said Frank.

"Good idea, kids. You can check this last batch of 100 and compare it to the planned average of 16 centimeters with a standard deviation of 0.03."

37. What should Laurel and Frank conclude?

(Use data from Table 8: Gap sizes of the puzzle pieces)

"You know what, Nick," Laurel said as they finished the testing. "It's almost as bad for the product if the gap is too big and the pieces fall apart."

38. Formulate a new set of Hypotheses to take Laurel's observation into account. Use the sample from the previous question to perform the test.

"That's valuable information," Nick responded when they presented the results. "You've saved me a fair amount of time later on when we go into full production. While you are at it, I've got one more problem that applies to this toy as well as to the Rough Rider."

"Be glad to help," offered Laurel.

"It seems that the wood we buy has been getting worse. We used to figure 12 percent of the load of wood was unsuitable for use because of knotholes and splits. Our cost seems to be rising; and since the price of wood has been constant over the last couple of months, I think the problem is in the quality. If I get

someone to check the last load we got, will you two see if the proportion of bad wood has changed?"

"Certainly," said Frank, "I can handle that myself."

39. A six-foot board is considered unusable if its percentage of waste is 16 percent or more. Each of the 125 six-foot board in the load was checked for the percentage of waste, with the results expressed in Table 9 (Waste per board). Was there a significant change in proportion of suitable boards?

Cold River's production Manager, Nick Pappas, was so pleased with the excellent job that Frank and Laurel did in the cash-flow problem that he sought Joe's approval to get them to do another production study.

"It is plain as day that some of the pedal-toy assembly workers get more work done than others. It is only fair that they get paid more," he said. "I believe in an honest day's pay for an honest day work. If some people get, less done than others, they should be paid less."

"Hold your horses!" Irene interjected. "There is no point in getting excited. Although there are differences from day to day, on average all the assembly workers produce the same number of toys each week." "Joe, let's get Frank and Laurel to test that assumption," Nick quickly responded.

"Why not?" Joe agreed.

"One question before we start," Frank added. "Does each worker do the same job, assembling a pedal toy from start to finish?"

"Of course they do!" Laurel said. "Haven't you been in the shop?"

40. Do the sampled data come from populations with the same mean? Analyze Irene's assumption based on the weekly production output of the sixteen workers sampled.

(Use data from Table 10: Weekly output per worker)

X

In the early spring, Joe cornered Laurel in the hall with a request.

"It's about time to start scheduling production requirements for the fall sled shipments. We need to estimate materials requirements and assembly time as closely as possible. In the past, we just added 10 percent to last year's final sales figure, but I would like a more reliable estimate from you two. Fred will be glad to help you."

"Oh no," moaned Laurel as she headed to the production area to find Frank. "More hassling with that old coot."

"Frank," she said, looks as if we need to work up some estimating equations for the Rough Rider. Do you want to bell the cat and ask Fred's help, or shall I?"

"Why don't we just send Fred a memo ?" Frank suggested. "Let's be assertive and direct. We'll say: 'Please, sir, what factors influence sled sales?'"

"And," Laurel chimed in, "he'll say—SALESMEN, good salesmen are the only thing that matters!" "At any rate, we'd better brainstorm some independent variables, so we'll have half a leg to stand on," Frank answered. "It seems like toy sales would be affected most severely by economic factors—disposable income, GNP—all the things that affect general retail sales."

"That makes sense," Laurel said. "Let's do a simple regression with retail toy Sales over the past 30 years, to predict Rough Rider sales and see what they, look like."

41. What are the coefficient of determination and coefficient of correlation for sled sales vs. retail sales? What should they conclude?

"Rotten fitting regression," Frank announced. "Even I know that."

(Use data from Table 11: Retail toy sales and sled sales, 1957-1986)