

Gemini: Reason

“The trouble, Dennis, is not that you *can't*, but that you *won't*,” Mr. Norton was saying. “There is no reason why you couldn't solve these problems as well as anyone else in physics class, if you would just settle down and try to reason them out. Under physical laws, certain causes always generate certain effects, and if you know what these laws are, it is not all that difficult to reason out how they will operate under specific conditions. I understand you're a champion skier, and a surfer, too; is that right?”

“Uh — why, yes, I guess so,” Dennis nodded, surprised.

“Well, now, in skiing, and in surfing, aren't there certain laws of motion that you have to be familiar with? Don't you have to be prepared for waves that break one way or another, for undertow, for the degree at which a mountain slope slants, and the amount of speed you generate, and at what angle and how you take curves, and many other such considerations?”

“Yes, sure,” said Dennis, “but I never thought of all that as being physics.”

“What else would it be?” asked Mr. Norton, smiling.

“Well — fun — I mean — gosh, Sir,” Dennis stammered, “I don't stop to figure all that stuff out every time. I just sort of *feel* it.”

“Of course. It has become natural to you. If you had to stop to figure it out each time, you wouldn't get very far on the skis *or* on the surfboard. But when you were learning, didn't you have to be very much aware of all the possibilities, and very conscious of what step on your part would bring about what results? Didn't you spend some hours with your skiing instructor, not skiing at all, but working out these things with

him mathematically with paper and pencil?"

"Yes, and I didn't like it much, either," Dennis grimaced.

"No, Dennis, I don't imagine you did, any more than you like sitting here in class working out physics problems. You're an active young man, and want to be constantly in motion. The time has come, however, for you to learn to use your head as well as your athletic talents. Didn't those indoor sessions with the ski instructor pay off?"

"I guess so," Dennis conceded. "I suppose I couldn't have gotten as far as I did without them."

"That's right. There are plenty of amateur skiers around who never had such classes, but you couldn't have made it to championship ranks without them. Believe it or not, physics, or any other course that teaches you to practice your reasoning abilities, will 'pay off' too. I have no doubt that you have a good mind," Mr. Norton continued, "but a mind must be exercised, just like a body. Now, I want you to take this sheet of problems home and try to reason them out this weekend. Apply what you have learned in class — and if you haven't learned all that we've covered, which I suspect may be the case, re-read the textbook. Let's have the problems back Monday, solved as well as you can."

Next morning, unwillingly, Dennis undertook the problems. His greatest difficulty was concentration, and he made several false starts throughout the day before settling down to some serious work in late afternoon. Once he forced himself to keep his mind on his work, however, he found that, as Mr. Norton had said, the answers more or less fell into place if he tried to figure them out logically. Certain causes always *did* have certain effects, and when faced with a number of contributing causes, it was not too difficult, using

reason and the deductive process, to determine the compound effect that might ensue.

On Sunday, when he tackled the last part of his assignment, Dennis found that he was actually looking forward to the challenge — that it was fun to try to reason things out. He smiled when he remembered Mr. Norton's words about exercising his mind. In its own way, this was turning out to be as enjoyable as exercising his muscles on the ski slopes. He knew he couldn't sit still for too long at a time — as Mr. Norton had said, he was restless — but if he devoted even short periods of time to "exercising his mind," and concentrated on that, and only that, during those periods, he might be able to work his mind into a championship instrument, too. Certainly it was *not* all that hard to reason things out for himself.

Dennis grinned as he handed his paper to Mr. Norton next day. "I'm not sure I should admit this," he said, "but I enjoyed doing those problems — once I finally got going on them."

"I rather thought you might," Mr. Norton smiled. "Mental challenges, in their own way, are as satisfying as physical challenges, and the more you develop your reasoning power, the better chance you will stand of overcoming obstacles of any sort that you'll be faced with in your lifetime."

"I guess you must have thought of me as one of those brawny athletes who can barely write their own name," grimaced Dennis.

"Nonsense!" said Mr. Morton. "I wouldn't have bothered talking to you like this or giving you those problems if I did. I knew all along you had the ability to reason, if you would just sit down and let yourself try. Lots of people, in fact, have good reasoning ability, but it's like any other talent: it has to be cultivated."