The Climb, as told by Ken to his last class in 2019

Almost four months ago, on January 15, 2019, we gathered together, all 20 of us, at the foot of the mountain, in different states of readiness for "the climb." At that time the mountain itself was shrouded in mist, and mystery. We had been assigned an old guide, who spoke in a strange tongue. Some of us already knew him but others did not. Together we slowly began the climb, from deep in the valley.

At first the sun was shining, and the path not very steep. As we climbed we came to various important landmarks, and stopped to look back, to look up, and to look around. At these places we met some interesting old men whom our guide said were important and, in their rugged ways, handsome. There were Pythagoras and an unknown person who dared challenge tradition (about $\sqrt{2}$) from Greece, Leonardo of Pisa from Italy—he told us to call him Fibonacci—Fermat, Pascal, and Mersenne from France, Newton and Cayley from England, Cantor from Germany, and Euler from Switzerland. As we climbed higher these old men climbed a little way with us, and we were able to learn from them, until, somehow, they slipped away from us—but what they had said would remain with us, forever. Our guide told us about what the old men had done, and we sometimes paused to reflect on their achievements. Usually, when we stopped the mist had cleared, and we were able to recognize that the view was becoming more and more interesting. The air, of course, seemed to be becoming thinner and thinner.

But, even when our lungs were bursting, the old guide pushed us onwards and upwards. We learned of the fundamental theorem of arithmetic, of "beautiful" *reductio ad absurdum* proofs that the square root of 2 is not rational, that the number of prime numbers is not finite. From old Mr. Cantor we learned a ridiculous method by which the set of rational numbers could be placed in one-one correspondence with the set of natural numbers. We also heard the crazy story of Mr. Fermat who, 380 years, was so frail he had not been able to write down the proof to what would be his last theorem—he just scribbled a little margin note saying that he knew a proof.

As we climbed higher most of us continually gasped for air. But then a strange thing happened: our old guide said he wanted us to go along some side tracks. First we went individually, and then with a partner. Somewhat reluctantly we did that, always a little unsure about where we were going and what we should do. Often, we took wrong paths, but we kept on climbing. When we returned to the main party our old guide insisted that we tell the others some of the things we had noticed on those side-tracks. A couple of us talked of magic squares, and of how to construct them. Others talked of the rules of three, of Pascal's triangle and binomial coefficients. We met perfect, abundant and deficient numbers, and Mersenne primes. Some talked about an intriguing golden ratio—something which even Donald Duck seemed to appreciate.

As we climbed, the old guide talked of groups and fields and structures—which seemed to be almost irrelevant half-way up a mountain. The old guide talked about how the distributive property (of multiplication over addition) was not only the backbone of mental arithmetic, but also of much of elementary algebra. He also told us more about exponentials and logarithms, about rational and irrational numbers, and about algebraic and non-algebraic, or transcendental, real numbers. He did not tell us much about complex numbers, though, for to understand those fully one needed to go much higher up the mountain. We listened, and tried to take it all in. He mentioned that another mountain, which we could see in the distance, was called "Calculus," and said that he hoped that, if we had not already done so, we would want to climb that mountain.

Finally, we could go no further. The clouds rolled away, and there below we could see from where we had come. The old guide told us that the time had come for us to go back down to the valley. “There we would find,” he said, “others who will climb the mountain.” “It will be your task,” he said, to lead them to “the beginning of the path where you began this journey.”

The old guide said that before we went back down the path he would test us, to see how much we had learned on our journey with him. He said he was confident that we would all pass the test with flying colors. “Down in the valley, the world is moving at a frenetic pace, and most believe they cannot, and do not want to, climb the mountain. But, in fact, they all can, provided you lead to them to the path, take them some of the way along it and, increasingly, allow them to ‘own’ the climb, and value the sights and stories.”

On the way up we had met a young man, from England, called Andrew Wiles, and had been impressed by the way he had climbed higher up the mountain, by himself, even though everyone down in the valley (and even some of the inhabitants of the mountain) had told him of the dangers of going further. But he had kept on climbing, until he reached a pinnacle that many had tried to reach before, without success. “Maybe, just maybe,” some of us thought, “we might have the courage to attempt something that we want to achieve—even though nobody else thinks we can do it.” We also met an old man, Christopher Ormell, who was still trying to climb his mountain. And our guide told us about Gillian Phillips, a school girl whom, many years he had taught to fly as she sang “Poor Wandering One.”

With words from such a multitude of witnesses ringing in our ears we took in one last breathtaking view of the mountains and the valleys—still shrouded in mist, but somehow much clearer than when we began—and knew that we had to return to the valley. “Would we,” each one of us asked herself (or himself), “ever climb the mountain again?” Most of us wanted to return. Some of us were determined to explore, in much greater detail, interesting sidetracks that had caught our eye on this climb. Others wanted to climb higher, much higher, than had been possible this time. Some wanted to do a new climb with a special friend.

The old guide added one last word of encouragement and exhortation: “Hopefully, for many of you, it will now be your turn to be the guide. If you have the opportunity, keep coming back to climb the mountain, for on its paths you will discover eternal strength and beauty. And, if you climb together you will find a comradeship that you never knew existed. You have been fortunate to climb the mountain. Thank you for helping me along the way, for I am old and would not have been able to climb it unless you had been with me, giving me strength. This will be my last visit to the mountain-top, for I am too weak to make the trip again. I have told you my stories—about Mr. McLean, who persuaded my parents to let me stay at school, and about Miss McDonell, my French teacher who inspired me to greater heights. You will create and tell your own stories. And, with those stories as an integral part of your teaching, you will affect the lives of many, many, thousands.” It will be your task to help young people to fly.

“This story, about ‘our climb,’ should give you strength for your future journeys,” the old guide said. He told us that although he would be gone, he was relying on us to take his place. He said that although he would never climb the mountain again, he hoped that nevertheless he would accompany us, in his mind, as we climbed, as we taught others to fly. He added that he would never forget us—the joys we had shared together, the memories of how we had learned what he had learned, and the friends we had made on our climb, would live with him for ever more.