Quotations

"Die Geometrie ist die Wissenschaft der unveränderlichen Dinge." nach Plato

"Ein der Geometrie Unkundiger möge hier nicht eintreten." Plato, Eingang zur Akademie

"Gib mir einen Platz zum Stehen und ich bewege die Welt." Archimedes

"Mathematical language is difficult but imperishable. I do not believe that any Greek scholar of to-day can understand the idiomatic undertones of Plato's dialogues, or the jokes of Aristophanes, as thoroughly as mathematicians can understand every shade of meaning in Archimedes' works."

> M.H.A. Newman Mathematical Gazette **43**, 1959, p167

"The trouble with the world is that the stupid are cocksure and the intelligent are full of doubt."

B. Russell

"My work always tried to unite the true with the beautiful; but when I had to choose one or the other, I usually chose the beautiful."

H. Weyl in F.Dyson, "Prof. Hermann Weyl, For.Mem.R.S.", Nature 177 (1956) 457-458

"There are three kinds of mathematicians: those who can count and those who can't." anonymous

"Es führt kein Weg von dem, was ist, zu dem, was sein soll." Henri Poincaré "I may be wrong and you may be right, and by an effort, we may get nearer to the truth."

Sir Karl R. Popper Open Society, vol.II, chap. 24 (1945)

"If the progress that has been made is great, then the new problems will be of a character undreamt-of before. There will be deeper problems, and there will be more of them. The further we progress in knowledge, the more clearly we can discern the vastness of our ignorance."

Sir Karl R. Popper "The Rationality of Scientific Revolutions", in *Problems of Scientific Revolution*. Scientific Progress and Obstacles to Progress in the Sciences, The Herbert Spencer Lectures 1973, R. Harré (ed.), Clarendon Press, Oxford (1975), and The Myth of the Framework, K.R. Popper, Routledge (1994), p.4

"I do not suggest that we should be eager to accept new ideas *just* for the sake of their newness. But we should be anxious not to suppress a new idea even if it does not appear to us to be very good."

Sir Karl R. Popper The Myth of the Framework, K.R. Popper, Routledge (1994), p.14

"Thus there is a field of peaceful competition here, and one in which we can hardly fail, if we enter it whole-heartedly. The most important task for scientists in this competition is, of course, to do good work in their own particular fields. The second task is to shun the danger of narrow specialization: a scientist who does not take a burning interest in other fields of science excludes himself from participation in that self-liberation through knowledge which is the cultural task of science. A third task is to help others to understand his field and his work, and this is not easy. It means reducing scientific jargon to the minimum — that jargon in which many of us take pride, almost as if it were a coat of arms or an Oxford accent. Pride of this kind is understandable. But it is a mistake. It should be our pride to teach ourselves as well as we can always to speak as simply and clearly and unpretentiously as possible, and to avoid like the plague the suggestion that we are in the possession of knowledge which is too deep to be clearly and simply expressed."

Sir Karl R. Popper The Myth of the Framework, K.R. Popper, Routledge (1994), p.109 – 110

Claude Bernard quoted by J. Hadamard, *The Psychology of Invention in the Mathematical Field*, Princeton Univ. Press (1945), and Dover Edition, New York (1954), p. 48

[&]quot;Those who have an excessive faith in their ideas are not well fitted to make discoveries."

"Perfection is reached, not when there is nothing more to add, but when there is nothing left to take away."

Antoine de Saint-Exupery

"Jeder Intellektuelle hat eine ganz spezielle Verantwortung. Er hat das Privileg und die Gelegenheit zu studieren. Dafür schuldet er seinen Mitmenschen die Ergebnisse seines Studiums in der einfachsten und klarsten und bescheidensten Form darzustellen." Karl R. Popper

"Die Intuition spielt im Leben eines Wissenschaftlers ebenso wie im Leben eines Dichters ohne Zweifel eine wichtige Rolle. Sie führt ihn zu seinen Entdeckungen. Aber sie kann ihn auch zu seinen Fehlschlägen führen. Und sie bleibt sozusagen immer seine Privatsache."

Karl R. Popper Die offene Gesellschaft und ihre Feinde 2, K.R. Popper, Mohr (1992), p.23

"Und heutzutage sollte kein Mensch als gebildet angesehen werden, der kein Interesse an der Wissenschaft nimmt."

Karl R. Popper Die offene Gesellschaft und ihre Feinde 2, K.R. Popper, Mohr (1992), p.333

"Mathematics, rightly viewed, possesses not only truth, but supreme beauty — a beauty cold and austere, like that of sculpture, without appeal to any part of our weaker nature, without the trappings of painting or music, yet sublimely pure, and capable of stern perfection such as only the greatest art can show."

Bertrand Russell

"So that we may say the door is now opened, for the first time, to a new method fraught with numerous and wonderful results which in future years will command the attention of other minds."

Galileo Galilei

"Philosophy [nature] is written in that great book which ever lies before our eyes — I mean the universe — but we cannot understand it if we do not first learn the language and grasp the symbols in which it is written. The book is written in the mathematical language, and the symbols are triangles, circles and other geometrical figures, without whose help it is impossible to comprehend a single word of it; without which one wanders in vain through a dark labyrinth."

Galileo Galilei *Opere*, 4, 171 "When we have the decrees of nature, authority goes for nothing." Galileo Galilei

"Cum Deus calculat, fit mundus (As God calulates, so the world is made)." Leibniz

"Beauty is the first test; there is no permanent place in the world for ugly mathematics."

G.H. Hardy

"Wenn du ein wirklicher Wissenschaftler sein willst, denke wenigstens eine halbe Stunde am Tag das Gegenteil von dem, was deine Kollegen denken!" Albert Einstein

"As far as the laws of mathematics refer to reality, they are not certain; and as far as they are certain, they do not refer to reality."

Albert Einstein

"Eppur si muove!"

Galileo Galilei

"Scientist typically understand science about as well as fish understand hydrodynamics."

Imre Lakatos

"Ein Mathematiker, der nicht irgendwie ein Dichter ist, wird nie ein vollkommener Mathematiker sein."

Karl Weierstrass

"Die ganzen Zahlen hat der liebe Gott geschaffen, alles andere ist Menschenwerk." Leopold Kronecker

"Nos mathematici sumus isti veri poetae, sed quod fingimus nos et probare decet – Wir Mathematiker sind die wahren Dichter, nur müssen wir das, was unsere Phantasie schafft, auch noch beweisen."

Leopold Kronecker

"Before anyone crosses this bridge, he must first state on oath where he is going and for what purpose. If he swears truly, he may be allowed to pass; but if he tells a lie, he shall suffer death by hanging on the gallows there. ... Now it happened that they once put a man on his oath, and he swore that he was going to die on the gallows." Miguel de Cervantes, Don Quixote, Part II, Chapter LI

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"I must study politics and war that my sons may have liberty to study mathematics and philosophy." John Adams, 2nd President of the USA

"Alles Interesse meiner Vernunft [...] vereinigt sich in folgenden Fragen: 1. Was kann ich wissen? 2. Was soll ich tun? 3. Was darf ich hoffen?" Immanuel Kant

Immanuel Kant

"Habe Mut, dich deines eigenen Verstandes zu bedienen!"

"Es gibt keinen Königsweg zur Mathematik."

St. Augustine, Confessions, book XI, sect. 13,14

I am asked what it is and try to explain, I am baffled."

"What then is time? I know well enough what it is, provided nobody asks me; but if

David Hilbert (Math.Kongress Paris, 1900)

"Wir hören in uns den steten Zuruf: Da ist das Problem, suche die Lösung. Du kannst sie durch reines Denken finden; denn in der Mathematik gibt es kein Ignorabimus!"

Euklid

lateinisches Sprichwort

David Hilbert

"Sapere aude"

"However, if we do discover a complete theory, it should in time be understandable in broad principle by everyone, not just a few scientists. Then we shall all, philosophers, scientists, and just ordinary people, be able to take part in the discussion of the question of why it is that we and the universe exist. If we find the answer to that, it would be the ultimate triumph of human reason – for then we would know the mind of God." Stephen W. Hawking, A Brief History of Time, Conclusion