

George Polya

Quotes

*Math, Science, Education, Teacher, Knowledge, Ideas, Discovery, Teaching,
Two, Mean, Book, Giving, Swimming, Opportunity, Order, Method, Numbers,
Firsts, Real, Hard Work*

Mathematics is the cheapest science. Unlike physics or chemistry, it does not require any expensive equipment. All one needs for mathematics is a pencil and paper.

~George Polya

In order to solve this differential equation you look at it until a solution occurs to you.

~George Polya

It is better to solve one problem five different ways, than to solve five problems one way.

~George Polya

Beauty in mathematics is seeing the truth without effort.

~George Polya

Solving problems is a practical art, like swimming, or skiing, or playing the piano: you can learn it only by imitation and practice.

~George Polya

It may be more important in the mathematics class how you teach than what you teach.

~George Polya

If there is a problem you can't solve, then there is an easier problem you can't solve: find it.

~George Polya

An idea which can be used only once is a trick. If one can use it more than once it becomes a method.

~George Polya

Geometry is the science of correct reasoning on incorrect figures.

~George Polya

Mathematics is not a spectator sport!

~George Polya

Look around when you have got your first mushroom or made your first discovery: they grow in clusters.

~George Polya

Mathematics consists in proving the most obvious thing in the least obvious way.

~George Polya

John von Neumann was the only student I was ever afraid of.

~George Polya

The elegance of a mathematical theorem is directly proportional to the number of independent ideas one can see in the theorem and inversely proportional to the effort it takes to see them.

~George Polya

My method to overcome a difficulty is to go round it.

~George Polya

A mathematics teacher is a midwife to ideas.

~George Polya

The open secret of real success is to throw your whole personality into your problem.

~George Polya

The principle is so perfectly general that no particular application of it is possible.

~George Polya

A GREAT discovery solves a great problem but there is a grain of

discovery in any problem.

~George Polya

The result of the mathematician's creative work is demonstrative reasoning, a proof; but the proof is discovered by plausible reasoning, by guessing.

~George Polya

The first rule of discovery is to have brains and good luck. The second rule of discovery is to sit tight and wait till you get a bright idea.

~George Polya

What is the difference between method and device? A method is a device which you use twice.

~George Polya

I am too good for philosophy and not good enough for physics. Mathematics is in between.

~George Polya

Mathematics is being lazy. Mathematics is letting the principles do the work for you so that you do not have to do the work for yourself

~George Polya

If you cannot solve the proposed problem try to solve first some related problem.

~George Polya

Analogy pervades all our thinking, our everyday speech and our trivial conclusions as well as artistic ways of expression and the highest scientific achievements.

~George Polya

There exist a lot of questions that the fools can ask, and the intelligent

cannot answer.

~George Polya

The world is anxious to admire that apex and culmination of modern mathematics: a theorem so perfectly general that no particular application of it is feasible.

~George Polya

There are many questions which fools can ask that wise men cannot answer.

~George Polya

When introduced at the wrong time or place, good logic may be the worst enemy of good teaching.

~George Polya

The best of ideas is hurt by uncritical acceptance and thrives on critical examination.

~George Polya

If you wish to learn swimming you have to go into the water and if you wish to become a problem solver you have to solve problems.

~George Polya

Success in solving the problem depends on choosing the right aspect, on attacking the fortress from its accessible side.

~George Polya

I am intentionally avoiding the standard term which, by the way, did not exist in Euler's time. One of the ugliest outgrowths of the "new math" was the premature introduction of technical terms.

~George Polya

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