

Institute for Christian Teaching
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**CHRISTIAN BELIEFS AND VALUES ILLUSTRATED IN THE
TEACHING OF THE MATHEMATICAL SCIENCES**

by

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“In the study of the sciences also we are to obtain knowledge of the Creator. All true science is but an interpretation of the handwritings of God in the material world. Science brings from its research only fresh evidences of the wisdom and power of God. Rightly understood, both the book of nature and the written word makes us acquainted with God by teaching us something of the wise and beneficent laws through which He works. The student should be led to see God in all the works of Creation.”

Patriarchs & Prophets, p. 599.2

INTRODUCTION

We live in age of rapid scientific developments when every day we are informed about new scientific data, achievements, discoveries and read new articles. Some hypotheses are being proved and others are rejected due to new facts and experimental results. Theories are being changed giving way to newer and more detailed ones. A flood of information and means of conveying data cause scientists to constantly keep their eye out for materials, which appear in mass media, in order to be informed about new research in the areas in which they are doing their scientific work. We can hear everywhere: “Scientists found out that . . . ,” “Scientists discovered that . . . ,” “Scientists created . . . ,” etc. Thus, for instance, I have recently read information on the Internet about new equipment innovated in Japan which allows scientists to decode the main emotions of a cat, or to translate them into “human language.” There are many more examples of such discoveries.

Mathematics, which is in the forefront of science, is also being constantly developed. Last year the tenth Gilbert’s Problem was solved (1970); the largest simple number which contains 4,053,946 figures has been calculated and many other events. But the most outstanding event, in my opinion, was the solution of The Greater Fermat Theorem. The

history of The Greater Fermat Theorem is a very interesting one. A lawyer, Pierre de Fermat (1601-1665) was a person who loved mathematics. He had been learning the theory of numbers of “Arithmetica” by Diophantos of Alexandria (III century) and made notes on the margins of the book. It is known that 100 years later Leonhard Euler (1707-1783), a famous mathematician from Petersburg had proved the Fermat Theorem. There was only one expression that he couldn’t solve: “Cubum autem in duos cubos, aut quadratoquadratum in duos quadratoquadratos, et generaliter nullam in infinitum ultra quadratum potestatem in duos ejusdem nominis fas est dividere: cujus rei demonstrationem mirabilem sane detexi. Hanc marginis exiguitas non caperet.”¹

The meaning of that was the following: “There are no natural numbers a , b , c such as $a^n + b^n = c^n$ with any $n > 2$.”² He had opened the most outstanding solution of that fact but this paper is so small that I have no space to include it. This Fermat Theorem was officially accepted only in 1995 or about 350 years later. People who had achieved such results were noted in history; many of them were believers, others were not.

Very often we talk with someone about God or the Bible. When we discuss theological issues we can hear objections like: “But scientists found out that . . . ,” “The scientists say that . . . ,” “The scientists have proved that” It looks like someone is mistaken in this case. Or are both sides right? Does science contradict the Bible? Is science important at all? What is science in general and how can we apply it? What do they have in common and what is different between scientific and biblical approaches to the world view formation? Can natural sciences including mathematics exist without faith in general and faith in God in particular? Is it possible to show and underline the relationship between science and a Creator in the process of teaching mathematical sciences? Can formulas and figures say something and preach about God?

A CHRISTIAN APPROACH TO MATHEMATICAL SCIENCE AND A SCIENTIFIC APPROACH

Today the Church faces the problem of secularization in many spheres. That is the situation when society tends to consider life without God or religion. Due to the gradual withering of faith in the supernatural, people limit the reality to this world and empirical experiences. People are neglecting religious values and the church as an institution is losing its influence on society. In this case many may not willfully reject God in their everyday life but God is given less and less place and significance. Their viewpoint though non-atheistic rejects all forms of faith and worship. At the same time the typical secular person just thinks that religion is useless but he does not have hostility towards it. The secular person can even believe in God but his religion is not vital for him. The theologian Langdon Gilkey in his book "Naming the Whirlwind" and Tony Campolo in his book "A Reasonable Faith" claim that the general thinking of a modern secular person can be described by the following words: correlation, autonomy, relativism and temporariness. John Paulin³ points out that secular people live in reality which they can feel with the help of five senses. Such a reality does not make life meaningful and defines no purpose. By denying God who maintains human life a person takes God's role on himself. In a decision making process he takes all necessary rights and advantages which belong to God alone. Each person decides what is best for him (self-government principle). This leads to the situation when the process of understanding the sense of life, vital values and truth depends on the situation in which that person is now. Being assured that everything is relative he rejects the existence of any objective moral norms and principles, which are to control the development of society. There are no absolute standards. Everything is relative. And any moral norms are valuable for the group of people who had created them. Instead of talking about truth and good and evil, secular people prefer

to talk about “what is true for you.” The idea of temporary lies in that our life is everything we can have here and now and therefore the motto to live a life with pleasures is a logical result of such an idea.

John Paulin underlines three factors of forming secular viewpoints, the scientific viewpoint, pluralism and individualization of religious life. He considers the first one to be the most important, because the majority of people today make their choice and solve their problems on a scientific basis using scientific methods. Doing this they observe the environment, gather information and address those who had similar experiences. They explain everything they see and consider the ways of controlling the situation. As a result of this a final decision is made. Such ways in decision making process is called a scientific method. It influences everything we do and believe.

In Bible times a person solved his problems differently. When Daniel and his three friends faced a problem they started to pray instead of doing research. They didn't go brainstorming and didn't go to the wise men but knelt and prayed to God.

This, of course, doesn't minimize the great benefit of the scientific method in applying it to various spheres of our lives. But because science has nothing to do with the supernatural (it's effective only in the area where everything is perceived by our natural sense organs) it is natural for it to explain the reality in such a way whether God doesn't exist at all or He doesn't interfere. Moreover, science has clearly shown that many physical phenomena, which used to be considered as a direct inference by God, can be explained with the help of natural laws. For example, consider the history of the development of the electricity and magnetism theory, in particular, the understanding of the nature of lightning.⁴ Therefore, the more reliable scientific definitions seem to be the less reliable religious doctrines seem to be. The more people forget about God, the lesser the role He plays in their lives.

The main difference between religion and science is the difference between truth and reality. This difference is insignificant for secular people. Truth and reality are identical for them. What is reality? For those people reality is such a notion, which is perceived by five senses: taste, smell, sight, hearing and touch. But for the Christian the truth is more than a perceived reality. When the first spaceman entered outer space he didn't see either God or angels. The conclusion will be obvious if we accept this perception of reality for the truth. But the Christian viewpoint is completely different because the truth lies in the opposite conclusion.

Some people think that science is fighting against ignorance and gaining the victory in the battles of getting knowledge. But science is not an all-embracing world view. It only deals with one side of reality. Any whole world view needs to include those areas of experience, which are above the limits of naturalistic interpretations. We shouldn't reduce truth to the level of our simplified understanding. When we deal with the issues related to the primary reasons, the limited perception of science is obvious. Science answers questions related to the description of the physical world, its peculiarities and relations but it loses its power when it deals with the reasons that rely on the basis of natural phenomena. To seek the truth and to interpret the natural phenomena is its main characteristic. And we need to admit that in its spheres it often achieves good results and technical progress including modern conveniences and witnessing about it.

The conflict between the Bible and science is not as deep as many people may think. In the process of intellectual search for the truth including getting knowledge and its interpretation science can cooperate with the Scriptures. Moreover, the scientific approach itself, as a process of learning the truth, needs such cooperation first of all.

Let us consider differences and similarities between scientific and theological approaches. There are major differences between them because science concentrates on its

observations and interpretations and the Scriptures pretend to contain the accurate information. The Bible concentrates on God's activity and its meaning. Science claims about its willingness to reconsider old theories whenever it is necessary and really reconsiders them. This fact alone tells us about the imperfection of the scientific approach though unfortunately some of the scientists insist on the authority and invariability of their ideas. They especially insist on the authority of science in general. Ellen G. White warned us about such people. In the fifth volume of Testimonies she wrote: "Many people who uphold science had lost God – the Author of science."⁵ Only God's Word is unchangeable and reliable.

At the same time, in the basic approaches of the Bible and in science we can find some similarities. Scientific observations, experiments and the Bible relate to the database but scientific interpretations and theology as a science tend to the interpretation. The Bible and scientific data (to a small extent) are unchangeable while their interpretation can be verified in broad terms. We frequently use the same basic rational process in the interpretation of the scientific data as well as in the interpretation of the Bible. Both science and the Scriptures partially complement each other. In order to find the meaning of our existence we shouldn't ignore either of them.⁶ May I suggest at least five good reasons why Christians who believe in the accuracy and authority of the biblical message should study science:

First, science is generally restricted to the study of the material world. In very broad terms science can be defined as a logical interpretation of data collected from the material world.

Second, if the Bible is viewed as entirely reliable, the comparison of scientific claims with the Bible might provide a measure of the success of science.

Third, disagreements between the Bible and science encourage a reexamination of how the Bible and scientific data are interpreted. Carefully considered scientific approaches can provide a lens for better understanding of the Bible.

Fourth, some who question the validity of their faith find some reassurance as they discover the degree to which science and the Bible agree.⁷

Fifth, and perhaps most important, the study of nature reveals something to us about the mind of the Creator-God that is empirically understandable and may not be revealed in Scripture.

The great physicist Johannes Kepler put it in this way: “To God there are, in the whole material world, material laws, figures and relations of special excellency and of the most appropriate order . . . Those laws are within the grasp of the human mind: God wanted us to recognize them by creating us after His own image so that we could share His own thoughts.”⁸

Mrs. Ellen G. White admonishes us to search the Scriptures diligently so that the study of the science will not lead us astray: “In true science there can be nothing contrary to the teaching of the word of God, for both have the same Author. A correct understanding of both will always prove them to be in harmony. Truth, whether in nature or in revelation is harmonious with itself in all its manifestations. But the mind not enlightened by God’s spirit will ever be in darkness in regard to His power. This is why human ideas in regard to science so often contradict the teaching of God’s word.”⁹

A proper evaluation of the scientific method is necessary if we are to make maximum use of it as a tool for greater accomplishments. We need to be thorough in our investigation and less dogmatic in our conclusions.¹⁰

Our understanding of the nature of science, the scientific method and the nature of scientific evidence influence our approach to the Bible and how they have shaped our theological beliefs. Trust in God’s Word, developed as a result of one’s personal relationship with Jesus, along with evidence from science, are essential in forming one’s world view.¹¹

THEACHING MATHEMATICAL SCIENCES: A CHRISTIAN APPROACH FOR INTEGRATING FAITH

The definition for natural sciences, and precise sciences as the part of them including mathematics, physics, etc., is well expressed by the following words by Leonard Brand: “Science can be defined as a search for truth through repeated experimentation and observation.”¹² Kant noted: “I claim that in each separate natural science it is possible to find the science as much as it is possible to find mathematics in it.”¹³ Another well-known expression says: “Physics is a queen of sciences and mathematics is its language”. Similarly humans would not be able to express their thoughts without a language as a means of communication, likewise physical laws would be purely descriptive without mathematics and its formulas.

On the other hand, we deal with mathematics in every day life in all spheres of our existence. And it is just impossible to imagine what the world would look like if there were no mathematics in it which gives quality and quantity criteria for different processes. (For example, on any continent, in every country, a day consists of 24 hours, an hour – of 60 minutes, each minute – of 60 seconds, etc.) This is indeed a viewpoint from which mathematics may be very useful for the perception of accuracy and the precision of laws placed by our Creator into the Creation process that still works.

Take, for example, musical notes and you would see that above them there are figures, which give measure. As soon as we deal with quantity we deal with figures, numbers and measure and all of them relate to the area of mathematics. A defining dictionary defines mathematics as a science, which study values, quantity relations and spatial forms. Jorge Santana wrote: “All arts hang over to music likewise all sciences strive for mathematics.”¹⁴ Mathematics is beneficial, it disciplines the mind, helps us to think logically, gives us an

opportunity to ground and prove hypotheses. It is simple and at the same time it seems to be complex and incomprehensible for many. Novikov said: “The art of solving geometrical problems reminds us of the tricks of illusionists – it is hard sometimes to understand how to do it even if you know the solution.”¹⁵

Mathematics can be either precise or relative. It is alive and its language is very precise full of different expressions and images. The only thing you need to do is to learn how to listen to them and hear them. It can even be funny and amusing but never boring and monotonous as some people see it. But the most important thing for us as Christians is that mathematics testifies about our God. It is also universal and international because all people use numbers and they can be understood by the citizens of any country. Blaise Pascal expressed that idea by the following words: “Mathematical truth either in Paris or Toulouse is the same.”¹⁶ This makes us think about the importance of the right approach in teaching and applying mathematics. The most important element is using the right strategy which arouses an interest to the process of learning mathematical sciences.

The Christian teacher of mathematics will seek to help each student:

- To recognize mathematics as an integral part of God’s creation;
- To discern spiritual truth in mathematical principles, relationships and processes;
- To appreciate the contributions of mathematicians who were devoted Christians;
- To adopt personal habits of order, accuracy, punctuality, logic, precision and balance;¹⁷
- To understand that mathematical sciences play an essential and important role in the everyday and practical Christian life;
- To be tolerant of other scientists who have made their contributions in the development of science, systematizing, analyzing and learning to make a right

decision understanding that they were mortal people who could be misled in the religious issues;

- To realize that true knowledge comes from God;
- To trust God's wisdom and leadership in any scientific approach to the solving mathematical problems;
- To prepare oneself to be a Christian scientist for whom the highest authority are the words: "It is written . . .," "God says so . . .";
- To develop and use his knowledge and talents for the glory of God who has given them to him.

"Education which gives no knowledge valuable for the eternity is senseless. But if you think about your future and heaven and eternal life then your achievements will be meaningful for eternity. If Jesus is your Teacher not once a week but every day and every hour then your education will be approved by God."¹⁸

John Wesley in his articles "Strategies for Integrating Faith in Mathematics"¹⁹ and "Instructional Strategies for the Integration of Faith and Learning"²⁰ the following concept is suggested and 12 strategies for integrating faith in mathematics have been defined.

Let's consider some examples which can be used in teaching mathematics for the integration of faith and learning. Christ and His disciples were using parables and images from every day life in order to make their speech comprehensive for the listeners. We also can start with the examples that can be considered as illustrative and conceptual clusters:

1) It is known that Henry Pointcarre (Puankare) once said: "If someone wants to define mathematics by using a short and expressive word, then he can only say that it is a science about infinity."²¹ From the Scriptures we know that God is Almighty and Omniscient. He has everlasting love and therefore we can use the symbol of infinity (∞) in order to define

His power, wisdom and love and His ability to be beyond time and space. (Psalm 139 beautifully illustrates this idea.)

“If all created beings could come to the full understanding of God and His works they would have no opportunity for the further deepening into the truth and for the broadening of their knowledge in order to develop their minds and hearts. For them God would not be a Supreme Being any more and a human having come to the pinnacle of his knowledge and achievements would stop developing. Let us be thankful to God for having the opportunity to grow.

He is infinitely great. He is the key that opens ‘all the treasures of wisdom and knowledge.’ (Colossians 2:3) And to all eternity men may be ever searching, ever learning, and yet never exhaust the treasures of His wisdom, His goodness, and His power.”²²

2) Numbers and figures. As it is known all numbers consist of only ten figures. And Pierre Simon Laplace expressed it by the following words: “The idea to express all numbers with the help of ten signs, giving them besides the meaning in forms the meaning in place, is so simple that it is hard to understand how it is amazing.”²³ This tells us about wisdom of our Creator who has given us such a universal and comprehensive method of quantities and calculations for all “tribes, tongues, people and nations.”

In lectures on mathematics (1795) LaGrange (Lagrange) wrote: “One ancient person said that arithmetic and geometry are the wings of mathematics. I think and I can say it without exaggeration that both sciences are the basis and essence of all sciences, which study quantities.

But they are not just the basis they are supplements because when they find the results; then in order to use it is necessary to transfer them into numbers or lines. In order to transfer them into numbers the arithmetic is needed, in order to transfer them into line the geometry is needed.”²⁴

It is also important to note that the theory of numbers was often called “arithmetic” or “higher mathematics.” And it is interesting to notice that the whole development of mathematics was caused either by the results of geometry or by the achievements in the theory of numbers. Many mathematical theories were established analogically to the theoretical numeral ones. It would be appropriate to say more about this simple and at the same time important issue.

We will illustrate two principles with the help of numbers:

3) There are two approaches in mathematical logic and in logic in general. They are induction and deduction. As you know deduction is a logical switch from a general claim to a particular one. And induction which is often defined by mistake as a logical switch from the particular to the general is not a logical conclusion at all because it can lead to false results or conclusions.^{25 26} In such a switch there is an element of probability, which can be simply called a supposition or a hypothesis. For example, a person may take the number 60 and notice that this number can be divided into 1, 2, 3, 4, 5 and 6. Then he checks randomly selected numbers 10, 12, 20 and 30. Because 60 is divided into those numbers then using inductive method the person can come to the conclusion that 60 is divided into all numbers! This obviously is not a correct hypothesis. And it can be disproved with the help of a scientific approach. Using inductive and deductive methods we can illustrate their usage in religious matters:

a. God loves the whole world, it means He loves all human beings (John 3:16), and I am also a human being then the logically correct conclusion would be that God loves me personally. But because we are the elements of the set, which consists of the all people, this conclusion will be correct for each person. This is an example of the deductive method.

b. The example of getting a correct conclusion by using inductive method. Adam and Eve sinned, other people have also sinned (there is at least one sinner in the world – it is me).

Taking this into consideration we can suppose that all people have sinned. Let's see what the Bible tells us: "For all have sinned and come short of God's glory" (Romans 3:23). Therefore, in this case the inductive method gives the correct result or the hypothesis is true.

4) It is obvious that numbers are interesting from various points of view. Thus, for example, a poet dedicated one of his poems to 30-year old lady and became interested in the number 30 because he thought that women are the most attractive ones at this age.

For the specialist in the theory of numbers 30 has more interest because it is the biggest number with the following characteristic: all numbers that are less than 30 and have no common divisors are the simple ones.

Another number is very interesting as well. That is 15,873; if you multiply it by any figure (any number from 1 to 9) and then multiply it by 7, the result will be the number formed by the repetition of the first figure chosen for the multiplication.

Another number is an even more interesting one. That is 142,857, if you multiply it by each of the figures from 1 to 6, you will get the cyclical permutation of the contained figures.

Followers of Pythagor considered a number to be a super one if it was equal to the sum of its own divisors. For example, $6=1+2+3$; $28=1+2+4+7+14$. They called such numbers "perfect."

So called "friendly" numbers, such as 220 and 284. Each of these is equal to the sum of the divisors of the another one, are also very interesting. When Pythagor was once asked about characteristics of a friend, he replied: "That is my second I as numbers 220 and 284."

A question arises: are there uninteresting numbers? Using elementary arguments we can prove the following claim.

A THEOREM: there are no uninteresting numbers.

A proof: if "boring" numbers existed than all numbers would be divided into two classes: interesting numbers and uninteresting ones. In the set of uninteresting numbers there

is always the least (smallest) one. But the least (smallest) number is interesting by itself. Thus, it needs to be transferred to the class of interesting numbers. But in the set of uninterested numbers the least number can be found again. By repeating the above mentioned procedure each uninteresting number can become an interesting one.²⁷

It is also true for God's attitude towards people. Each human has a great interest for God. The interest is so great that He showed it on Calvary. At the same time we can be invaluable for the people around us and that is bad. Or what is worse is that someone has no interest for us.

5) G. Leibnitz wrote: "Complex numbers are wonderful and beautiful refuge for God's spirit, it is almost a combination of existence and nonexistence."²⁸

At school we studied natural numbers, whole, rational, irrational and real numbers. At that time there were no complex numbers for us, though they have always existed. We just knew nothing about them. When we went to the University we got acquainted with them. They are presented in three types: $z=a+ib$, trigonometric, trigonometric and indicative (demonstrative) in kind. An interesting correlation $e^{i\pi} + 1 = 0$ is related to the latter form. This famous formula, probably the most compact and significant one had been found by Euler before Muaur found it. For a scientist, philosopher and mathematician it is an interesting one. The history of its discovery is very significant. Catherine the Great had a dispute regarding the existence of God. Leonhard Euler and Pierre Laplace were invited to participate in the dispute. Euler who was the first to have a floor went in front and having written on the board « $e^{i\pi} + 1 = 0$ » had claimed: "Consequently, God exists!" The dispute was finished without any objections. Yes, it is hard to explain how one imaginary and two real numbers can be united in one nice simple formula.

6) Leibnitz estimated the double system very high, seeing in as the prototype of Creation. He presented 1 as a divine beginning, 0 – as nonexistence and that Highes

Beginning create everything according to His own will and out of the nonexistence as well as 1 and 0 form all numbers in the double system.

7) As we mentioned in the first example, the power of God can be presented by the symbol of infinity. In the theory of limits we can give the analogy with the help of how we can illustrate the action of God's power in the life of a human being. Let us present it this way: $\lim_{x \rightarrow \infty} f(x) = \infty$. A human himself is powerless ("for without Me you can do nothing" – John 15:5). Therefore human power can be modulated by $\lim_{x \rightarrow \infty} g(x) = 0$. If $f(x)$ and $g(x)$ - polynomials of m and n degrees then the following three options are available:

a) If $f(x) = x^4$ and $g(x) = \frac{1}{x^2}$. Then $\lim_{x \rightarrow \infty} f(x) \cdot g(x) = \lim_{x \rightarrow \infty} x^4 \cdot \frac{1}{x^2} = \lim_{x \rightarrow \infty} x^2 = \infty$. This case shows the time when a person is open to the influence of God's power. And he has been changing thanks to this power. In this case he can do all things with God (Philippians 4:13).

b) Let us consider the case when a person openly rejects God's power. He can dream and think high about himself, 1000 in the numerator shows that. If $f(x) = x^4$ and $g(x) = \frac{1000}{x^6}$. Then $\lim_{x \rightarrow \infty} f(x) \cdot g(x) = \lim_{x \rightarrow \infty} x^4 \cdot \frac{1000}{x^6} = \lim_{x \rightarrow \infty} \frac{1000}{x^2} = 0$. No matter how high he evaluates himself – he can do nothing without God.

c) This is a case when a person allows God to work a little bit in his life but he keeps some places just for himself not wanting to trust God fully. In this case the formula will be the following: $f(x) = x^4$ and $g(x) = \frac{5}{x^4}$. Then $\lim_{x \rightarrow \infty} f(x) \cdot g(x) = \lim_{x \rightarrow \infty} x^4 \cdot \frac{5}{x^4} = \lim_{x \rightarrow \infty} 5 = 5$. The changes have been done but they are restricted. The Scriptures tells us: "Be ye holy, for I am holy, says the Lord" (1 Peter 1:16). Sanctification needs to be done in full measure (1 Thessalonians 5:23). ". . . we shall be like Him" we read in 1 John 3:2. But the final number is not equal the infinity! And a person who rejects God's power and influence of the Holy

Spirit without allowing Him to make him a new creation has a danger to stay an old, not born from above, person.

8) Generally speaking, using the third example we can demonstrate the issue of coordination (agreement) between theory and practice confirmed by an experiment. But we can also use another example. Suppose a hypothesis was proposed according to which all odd numbers are simple ones. At least one might be considered as such a number, then go 3, 5 and 7 which are the simple ones too, then – 9 which is not a simple one, but 11 and 13 which follow are simple ones again. Sometimes in engineering specialists just brush aside such a case, especially when it is out of limits of other results calling it “an error of an experiment.” In the theory of probability there is a so-called rule of 3σ for the law of normal allocation of a quantity.²⁹ But for pure mathematics it is not true. That’s why it is called a precise science. In scientific circles there is a joke that says: “specialists of theoretical mathematics are doing what they can in the way it should be, but specialists of applied mathematics are doing what they need to do as good as they can do.” Using a strict mathematical approach we need to reject this hypothesis declaring it as a false one, regardless of how beautiful it looks. But we can propose another one according to which some of the odd numbers are whole ones, what is true.

There is also a special theory of experiment planning in mathematics. The experiment is very important in proving the hypothesis for physical and mathematical sciences. Someone said: “Unless you have got into the hole you will say nothing about its depth.”³⁰ The experiment is indeed a criterion defining how good hypothesis is. Moreover the Bible itself teaches us to do experiments. Let us read some of the quotations:

- “Prove all things; hold fast that is good” (1 Thessalonians 5:21).

- “. . . prove Me now says the Lord of hosts, if I will not open you the windows of heaven and pour out a blessing that there shall not be room enough to receive it” (Malachi 3:10).

- “Oh, taste and see that the Lord is good . . .” (Psalms 39:8).

But we also need to remember that it is not good to try everything. Sometimes it can be a temptation (Mathew 4:6-7). Even the great Newton wrote in one of his letters in 1716: “Those who are working in deep mines of knowledge need to come out once in a while in order to breathe pure air”³¹ At the same time we need to remember that we are humans and in Deuteronomy 29:29 it says: “The secret things belong unto the Lord our God: but those things which are revealed belong unto us and to our children”. This shows that there is a limit to science and the scientific approach. This principle is very important in science because it teaches us to ask the right questions. American politician Bernard Baruch said: “Millions of people saw the fall of an apple but only Newton asked why.” The questions of “how?” and “why?” are very important for the illustrating the correlation between God’s knowledge and ours. Very often science can answer the question: “How is this process going?” but the question: “Why is it going this way?” puzzles scientists. Only a Creator who created nature and put His laws into it can give the answers to it and explain why. At the same time we need to note the fact that very often answers are given in an approximate, simplified way because the real picture without simplifications is very complex for us. By simplifying it we receive models which agree with the experiment.

Kant in particular, claimed that axioms of Euclid’s geometry set a priority for human intuition. This claim was in harmony of the definition of the axiom as an obvious truth, the definition which caused no doubts during 2000 years.

This position had been shaken by the works of Boliaï, Lobachevsky and Riman in 19th century. They postulated geometric systems which were not Euclid and, moreover,

which rejected the truthfulness of the following Euclid's axiom: "If there is a line and a point outside of it than there is only one straight line which goes through the point and parallel to the given one." We are living in time when generally accepted viewpoints based on Einstein's theory of relativity and that deals with outer space geometry of which is better described by Riman's scheme according to which there is no parallel lines.

Other words, our modern viewpoints not only contradict Kant's claims that axioms of Euclid's geometry set a priority for human intuition, but also they establish the idea that one of Euclid's axioms as a so-called axiom of parallel lines in reality does not describe the Universe correctly. Meanwhile, we suppose that Euclid's geometry accurately describes the space relationship in our everyday life but not a cosmic space of the Universe. That is in coming close to the Earth the following model adequately describes the reality.

CONCLUSIONS

The most fundamental characteristic of nature which is studied by various sciences including mathematical ones, is a peculiarity that main laws are described by mathematical theories of the greatest power and beauty demanding a high level of mathematical knowledge. God is the greatest Mathematician and in the Creation of Universe He has used higher mathematics. In our human level we get a certain more-or-less accurate approximation valid in certain conditions.

Science in general and mathematics in particular cannot exist without a religious world view. Even in the definition of science we can see its religious aspect, namely:

- 1). Belief in objective existence of the laws of the nature (The principle of casuality).

2). Belief in the unity of these laws in all spatial and time context continuum which manifest itself in natural conditions as well as in laboratories in observations as well as in experiment (principle of universality).

3). Belief in the intelligent character of those laws which gives us a chance to grasp them by using the rational method (principle of rationality).

Religion and science do not exclude each other but instead they agree and supplement each other. For this the complex approach is needed. Both science and religion demand faith in God for their basis. For religion God is a foundation, for science He is a crown for creating world view. For considering the issues of the correlation two questions are important, these are “how?” and “why?”

In the process of teaching mathematics the integration of faith and learning is possible and necessary to implement 4 main trends (methods) which are presented in 12 strategies. Students need to see mathematics as a divine diamond which is shining as a rainbow depending on what side of God’s wisdom we look at.

Examples given in this paper as well as other examples help us to demonstrate and better understand the relationship between theoretical and applied mathematics on one side and faith on the other side. We as teachers realizing this need can and have to learn at the feet of our Divine Teacher. He gives us wisdom from above (James 1:15) which is “. . . pure and peaceable . . .” (James 3:17). Only with Jesus will we be able to reach the goal and fulfill our responsibility as teachers (Philippians 4:13): “I can do all things through Christ who strengthens me.”

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