On Viewing Mathematics

By James D. Nickel

First, Bradley recommends Alistair McGrath's recent *work The Open Secret, A New Vision for Natural Theology* (Oxford, UK: Blackwell Publishing, 2008). In this book, McGrath

> **Some thoughts from James Bradley, math professor emeritus, Calvin College.**

is trying to show that to understand the physical world, one must see it (i.e., interpret it) through the eyes of Scripture. This is nothing new, though. It is almost a direct quote from John Calvin (1509-1564) and draws its strength, of course, from Scripture (Romans 1, Psalm 19) and the writings of Augustine of Hippo (354-430).

Second, following the heritage provided by Johannes Kepler (1571-1630), Bradley articulates the "classical" interpretation of mathematics:

1. Mathematics consists of ideas that have existed in the mind of God from eternity.

2. As such, it consists of eternal, unchanging truths that transcend human minds.

3. God used mathematics as patterns in making the universe.

4. We are able to understand the truths of mathematics because God created us with the capacity to do so [I have often called the ability to think mathematically as the creative "sixth sense."]

5. The mathematical orderliness of creation is an expression of God's rationality [I have often said that the Lord Jesus Christ, the mediator of redemption and creation, is the true foundation for the rationality of the universe; see Colossians 1:15-17; 2:3; John 1:1-3].

Expanding on point 5, Bradley reveals that Gottfried Wilhelm Leibniz (1646-1716), the co-founder of the calculus, asserted that "in finding mathematical truths, human begins discover part of God's reason."

Third, understanding mathematics "classically," provides clear answers for the meaning, purpose, and value of mathematics. Bradley encapsulates this in two points:

1. In doing mathematics, we are handling divine things. Its order and beauty should lead us to worship [I have often said that if we understand the wonders of mathematics rightly, we will be directed toward a response of worship].

2. God is purposeful and has given human beings the capacity to understand the patterns used in creation. Thus mathematics is deeply tied to our role as steward of that creation [Bradley is reiterating the importance of seeing mathematics as a tool of dominion).

I can summarize the first two points in one sentence: *Mathematics is a tool of wonder.*

Fourth, Bradley purports that three fundamental Christian doctrines can be applied to argue for portions of this "classical" interpretation.

1. *Creatio ex nihilo* - all that is comes from God.

2. Omniscience - God knows (and has always known) all truth.

3. *Imago Dei* - we are made in the image of God.

Fifth, Bradley notes *the radical secularization* that has taken place in the understanding and teaching of mathematics (this is one of the unfortunate "fruits" of the "success" of modernism). I can vividly remember talking to the department head of mathematics at Texas A&M University about this classical approach and receiving a dismissive response, "Tying religion to anything, especially mathematics, is dangerous." Well, Kepler did not think that tying God to mathematics was dangerous; he thought it was a requisite link! As Biblical Christians involved in education and, specifically, mathematics education, it is our calling to show, in as wise a manner as possible, that God is indeed the foundation of all knowledge, mathematics included!

Bradley concludes, "The classical interpretation of mathematics offers a grand and inspiring vision and one worthy of respect and careful consideration.*" Amen and Amen!*

Resource: James Bradley, "A Vision for ACMS," in *17th Biennial ACMS Conference*, May 27-30, 2009 (Wheaton, IL: Association of Christians in the Mathematical Sciences), pp. 7-15.