



## Course: The Seven Liberal Arts with Christopher Perrin and Andrew Kern

Lesson 6: The  
Quadrivium  
with Andrew Kern

### Course:

#### Introduction

- Apart from Christ, the Trivium and the Quadrivium disintegrate.
- God gave us language (Logos) and numbers as gifts to know the world, and we must reclaim these to restore harmony in our fragmented world.

#### Loss of Truth (3:50)

- **The Truth:** The Quadrivium cultivates skills, perceptions, & sensitivities in children that lead to discoveries and blessings beyond measure.
  - Utility and practicality, however, became more important than truth.
- Turns from Truth:
  - **Turn 1:** When Francis Bacon said, “Knowledge is power,” he shifted knowledge away from seeking truth and towards having power, authority, and control. The Western world followed his example.
  - **Turn 2:** When René Descartes developed analytical geometry, geometry’s focus shifted from geometry for truth, to geometry for a purely mathematical process.
  - As these turns illustrate, new mathematical concepts replaced the importance of the Quadrivium in the Western mind; instead of a search for truth, the world turned to *material and efficient causes*.
- We must return to seeking truth, harmony, wisdom, and virtue, rather than seeking knowledge and power.

#### Arithmetic (13:45)

- **Arithmetic**—numbers at rest; the study of multitude
- For example, arithmetic deals in discrete, or separate, numbers, such as holding up two lens caps

#### Geometry (14:58)

- **Geometry**—shapes at rest; the study of magnitude
- For example, geometry deals in shapes, such as *how much* of a circle you have, not the number of circles you have
- Similarly, 1 line about 5 inches long is geometry, while 7 book titles is arithmetic!



## Harmonia (16:45)

- **Harmonia (music)**—numbers or multitude in time; numbers moving through time (motion)
- Harmony or music involves ratios and proportions
- The music of the human body has a ration of 3 to 4

## Astronomy (19:50)

- **Astronomy**—the study of shapes moving through space and time; or, magnitude moving through space and time
  - In the medieval world, astronomy let people study shapes that moved regularly through the sky.
  - Stars were used to study movement and allowed for reasonable predictions with the right mathematical relations.
- The **art of astronomy** heightens sensitivity to harmonies of shapes moving through time and space, while the **science of astronomy** studies stars as balls of gas, etc.

## Harmonia as the Keynote (22:50)

- In the 17<sup>th</sup> century, the Quadrivium was excluded from the Trivium—the Trivium became literature-based and the Quadrivium math-based.
  - The art of harmonia bridges that gap!
  - All seven liberal arts teach people how to be sensitive to harmonies, so it is fitting that Harmonia makes people sensitive to harmony itself.
- A sensitivity to how things fit together makes us better able to think about and live in the physical world.
  - Example at (24:18)—Mothers are sensitive to the harmonies and rhythms that change amongst their children.
- **Harmonia is called music, but it is really numbers in time and space—a mathematical study that we feel with our heart and body.**
- We sense harmony and discord in music because God made our hearts for math.
- The pleasure of harmonia draws us in physically, intellectually, and spiritually; harmonia/music is the bridge between the physical, the soul, and the spiritual.

## Why Teach Math? (31:45)

- **Main reason to teach math:** We live in a broken, fallen world of discord, and mathematics allow us (and students) to practice resolving discord into a harmony!
- **Math teaches students deep spiritual, emotional, and social truths.**
  - Math teaches students how to endure discord.
  - Math teaches students how to resolve that discord.
- The forms and beauty of math teach God's harmony, which sets us free.



## Why Teach Geometry? (36:34)

- Geometry allows students to contemplate quietly and to better pay attention.
- How does this apply to tests? If students order their instruction toward God, other strengths will follow!
- We cannot understand geometric truths without paying attention to them and giving them time.
  - Andrew Kern's Euclid example: "A point is that which has no part." It took Andrew Kern 5 years to understand this, but once he did a fundamental shift took place in his thinking.
- In geometry, students will find a dimension of existence that cannot be seen, but that can be perceived by the mind. Similarly, we cannot look at God, yet we can perceive him.

## Final Thoughts (42:00)

- All elements of the Quadrivium use counting, measuring, and assessing, but the ultimate end is to know God & his creation, and to live in harmony with it.
- The Quadrivium allows us to purify our hearts & minds by learning to endure discord and faithfully seek resolve.
- Teach children math so that they might diligently seek the truth and harmony God has placed in this world; the rewards are harmony, joy, power (ability), and new paths of opportunity for the mind.